

ALL IRELAND AND UK MINE RESCUE COMPETITION

17th & 18th May 2013



Hosted by:
Boliden Tara Mines Limited
Navan
Co. Meath
Ireland



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Foreword

The management and staff at Boliden Tara Mines Limited are delighted to have hosted the 2013 All Ireland and U.K. Mine Rescue Competition. I would like to take this opportunity to thank my own organising team who worked so hard to make the event the resounding success it proved to be.

This competition cannot take place without participating teams and to this end I would like to thank my own team Boliden Tara Mines Team, Cleveland Potash, Winsford Salt Mine, Lisheen, Irish Salt and the Galistar team for taking part this year.

The competition format is now firmly set so that all participants know well in advance what to expect over the two days of the competition. This can be attributed to the commitment of our respective mining inspectors who continue to lead from the front by getting involved in the set up and judging of the event.

I would like to thank the following judges & consultants for their preparation time and their involvement over the two days.

Pat Griffin	HSA of Ireland
John Whyatt	HSE UK
Brian Robinson	Rescue 1
Paddy McManus	Mine Rescue Services
John Boyd	Respro
Mervin Nolan	Respro
Jim & Maria Mooney	Irish Red Cross
Pat White	Tara Mines
Joe Rice	Mine Rescue Consultant

The venue for next year's competition is Boulby Mine in Cleveland, U.K.

As a past mine rescue member I am very aware of the importance of mine rescue therefore I would like to take this opportunity to urge all personnel in Mine Rescue to continue with the good work that was clearly evident over the two days at Tara Mines this year.



Mick Flynn
Production Manager
Boliden Tara Mines Limited

Note from IMRC Chairman

All Ireland and UK Mine Rescue Competition 2013

Mike Lowther- Chairman of Irish Mine Rescue Committee
Manager of Mining, Boliden Tara Mines Limited.

Observations:

It was really great to see all the teams assemble and participate in this year's competition. The Bench Test and Oral exams which test the in-depth technical knowledge of all team members took place on the Friday afternoon before we all joined together for the pre competition briefing in the Newgrange Hotel, concluding with the draw for the Saturday Search & Rescue, Physical fitness and First-Aid tests.

Saturday turned out to be a fine day with the weather holding good for the various events.

It was disappointing that Cleveland Potash were not able to compete in the events on Saturday but they acquitted themselves well in the Bench Test and Oral.

The mutual assistance programme between Tara, Lisheen, Galmoy and Irish Salt took a huge step forward at this year's event with the combined team "Galistar" made up of personnel from Tara, Lisheen and Galmoy taking part as a separate team in this year's event. Irish Salt also managed to get in on the act after one of the Galistar team was withdrawn from competing due to feeling unwell, and one of the Irish Salt team members joined with Galistar in the Fitness event, to form "Galistarsalt"!

The First Aid Element of this year's event was well thought out and run by the Slane Red Cross. I was delighted to see how all the teams handled the very unusual threat from a knife wielding villain before attending to the other casualties.

The fitness event proved to be a huge test for all the participants with no team managing to get past the 8" x 8" which left the teams highly disappointed at not having achieved the goal. However, as I stated at the prize giving dinner later that evening no team should have been disappointed because in a real situation back up teams would come in next and complete the task. We recently ran a mutual training event at Tara to prove exactly that point.

The Search and Rescue event tested the skills and knowledge of the teams and their Captains. According to the Judges there was very little between the teams at the end of the day.



I would like to thank the Irish Air Corps who provide aerial support to our rescue teams, and in particular Lieutenant Colonel John O'Keeffe, whose support over the last five years has greatly enhanced our capabilities. John piloted the AW139 during the demonstration flight at lunch time on the Saturday.

Our competition continues to grow and expand with last year's winners, Lisheen, taking part in the inaugural Iberian competition this year. Captained by Tim Bergin, Lisheen acquitted themselves very well and came second overall out of the five teams. It is hoped that this will open up new horizons for Rescue Teams in Ireland, the UK and now Portugal and Spain.

As mines close in the UK and Ireland (Maltby and Daw Mill Collieries in England, and Galmoy in Ireland, all in 2013) the number of trained Mine Rescue personnel reduces and we must stick together and collaborate more and more in the coming years.

I would like to commend the Lisheen Mine Rescue Team for their excellent professional work during the serious incident at their Mine this April.

I would also like to personally thank Pete Small who has moved on from Galmoy Mine, which has closed. Pete has spent 12 years in Mine Rescue at Galmoy, most recently as Mine Rescue Officer, and he has done a great deal to help develop Mine Rescue in Ireland and the UK.

Finally, whilst there is always great rivalry and excitement on the days up to and during the competition we must remain focused on the primary reason for the competition – to improve our Mine Rescue Skills.

See you next year in Boulby Mine in Cleveland, U.K.

Best Regards,

A handwritten signature in green ink, appearing to read 'Mike Lowther'.

MIKE LOWTHER
CHAIRMAN, IRISH MINE RESCUE COMMITTEE
MANAGER OF MINING, BOLIDEN TARA MINES LIMITED

BOLIDEN Irish Mine Rescue Committee
Tara Mines



Irish Gypsum Ltd

ISME Irish Salt Mining &
Exploration Co Ltd



Introduction

The All Ireland and UK Mines Rescue Competition 2013 was hosted and run at New Boliden Tara Mines. The competition which took place over 2 days involved an Underground Search and Rescue response exercise, a Physical Fitness exercise, a First Aid response exercise and a Bench Test & Oral Test exercise. The Bench Test & Oral Test took place on the first day Friday 17th May facilitating teams to arrive at Tara Mines, Navan according to their travel arrangements. On Friday night all teams, trainers & accompanying management were welcomed by Tara senior management, safety induction was carried out and the draw to fill the timesheet matrix for the Saturday 18th competition was held. Tara Mines, a complex Pb/Zn mine in the heart of Navan town is now in operation for over 38 years, has extracted over 40m tonnes of ore and continued in operation during the hosting of the competition.

Competition format

The competition was in four parts;

Test:	Scoring:	Where:	Judges:
Search & Rescue	50 %	Underground	H.S.A Inspector Pat Griffin, H.S.E. Inspector John Whyatt Pat White (Mine Captain – Tara)
First Aid	15 %	Surface – Mill	Irish Red Cross (Jim Mooney)
Fitness/Physical	15 %	Surface (Ballymun)	Brian Robinson
Bench Test & Oral	10 % 10 %	Surface – New Boliden Way Offices	John Boyd & Mervin Nolan for RESPRO Ltd, H.S.A Inspector Pat Griffin, H.S.E. Inspector John Whyatt

Weekend Programme

Date	Time	Activity	Location
Friday 17th May	08:00-16:00	Delivery of Equipment to Boliden Tara Mines Limited.	Mine Rescue marquee beside canteen and offices beside canteen.
	11:00-18:00	Bench Test and Oral. *Refer to schedule for this	
	20:00	Competition briefing and draw including site induction (necessary for site entry).	Russell Suite, Newgrange Hotel, Navan.
Saturday 18th May	06:00	Early breakfast arranged with Newgrange Hotel	Hotel
	07:30	Mine Rescue Teams arrive on site	Mine Rescue marquee beside canteen
	08:00 – 15:30	Mine Rescue Competition	Tara Mines
	19:00	Pre-dinner drinks reception	Newgrange Hotel, Navan
	20:00	Dinner and presentations	Knowth, Newgrange Hotel
Sunday 19th May	Before 12:30	Teams collect gear between 10:00 & 12:30	Tara Mines

Bench Test Timetable

11:00 – 12:00	12:00 – 13:00	13:00 – 14:00	14:00 – 15:00	15:00 – 16:00	16:00 – 17:00	17:00 – 18:00
Tara	L U N C H	Lisheen	Winsford	Irish Salt	Cleveland	Galistar

Competition Timetable

Team	08:30 – 09:30	09:30 – 10:30	10:30 – 11:30	11:30 – 12:30	12:30 – 14:00	14:00 – 15:00	15:00 – 16:00
1 Lisheen	Fitness		First Aid		LUNCH	Search & Rescue	
2. Tara	Search & Rescue		Fitness			First Aid	
3. Galistar	First Aid		Search & Rescue			Fitness	
4 Irish Salt		First Aid		Search & Rescue			Fitness
5 Winsford Salt Union		Search & Rescue		Fitness			First Aid



Sponsors

A very big thank you to all our sponsors who supported the event: -

Award Sponsors: -

AWARD	SPONSOR
Team Safety	Irish industrial Explosives
Bench Test	RESPRO
Fitness	Smiley Monroe
First Aid	Atlas Copco
Search & Rescue	Finning Ltd.
Best Captain	IMQS – The Irish Mining & Quarrying Society
Best Irish Team	M.A. Healy Ltd.
Best Overall Mines Rescue Team	Priority Drilling Ltd.

Other Sponsors:-

	Sponsor
Bottled Water	Tipperary Water
Towels	Fitzpatrick Electrical Distributers Dundalk
Corporate	Navan Hire
Snacks on the day	Skanska
Pre-Dinner Drinks Reception	QME

Underground Search and Rescue exercise:

The Scenario as given;

2 miners were taking down an old backfill pipe line (pipes were 8" diameter/heavy) on the 1530 hanging wall haulage.

They were using a normet scissors lift. As they were 'dropping' 1 of the pipes to the ground it slips off its hanger and pulls the next pipe alongside off its chain hanger.

One of the pipes strikes an electrical fan panel which is hanging along the sidewall and it immediately catches fire. The other pipe 'slews' across the deck of the scissors lift and hits one of the miners across the legs. He is knocked onto the deck of the scissors lift and suffers a fracture of the fibula and tibia of his right leg, his partner is not physically hurt but is shaken by the event, he tries to help the injured man but he has to retreat to the Safe Haven/Refuge Station nearby because of the smoke. He lowers the scissors lift deck right down to its lowest level and runs to the Refuge Station; he stumbles on his way, falls and suffers a laceration to the palm and wrist of his right hand.

The Safe Haven/Refuge Station is about 70 metres away from the incident scene. On entering he telephones the emergency control centre on surface, he informs the emergency control operator of the fire, he calls for a full evacuation of the mine and requests a Mine Rescue Team to come to the assistance of him and his injured partner immediately, at this point telephone communication is lost with the refuge station. The Emergency Control Operator rings back several times but he gets an engaged tone.

Stench gas is injected into the mine and a full emergency is declared and the mine is evacuated.



Rescue Team Briefing - at F.A.B.

Emergency Control received a phone call at 16:05 from 1530 Safe Haven/Refuge Station. The miner gave his name as Seanie Connolly, he informed 'control' that he and another miner were taking down an old backfill pipe line along the 1530 hanging wall haulage, he said a number of the pipes slipped and fell to the ground and injured his partner.

One of the pipes hit an electrical panel which has caught fire filling the area with smoke. He had to retreat to the Safe Haven/Refuge Station; he called for a full evacuation of the mine and the assistance of a mine rescue team immediately for himself and especially his workmate whom he named as Roddy Michaels, at this stage the Emergency Control Centre lost telephone contact with the Refuge Station. The phone is now ringing 'engaged.'

The rescue team is met by the shift supervisor who gives them the following verbal information and hands them the plan of the area and their task in writing;

- Got a call from "1530 Safe Haven/Refuge" station in-bye.
- Seanie Connolly says he was taking down old pipework along 1530 haulage with Roddy Michaels.
- He says a number of pipes fell and hit Roddy
- One of the pipes hit an electrical panel which caught fire
- He ran and called from the safe haven, Roddy is missing
- We have lost contact – phone now ringing engaged

Rescue Team written task is:

35 minutes have elapsed since the phone call from the 1530 Safe Haven/Refuge Station, all personnel in the mine have now been evacuated to safety apart from the 2 men in 1530 hanging wall. You are requested to set-up F.A.B on the main ramp outside of the 1530 vent doors. Put a plan together to affect a rescue of the 2 stricken men. The team captain is requested to inform the briefing officer at the scene of his plan, get his team under oxygen and rescue the 2 missing miners.

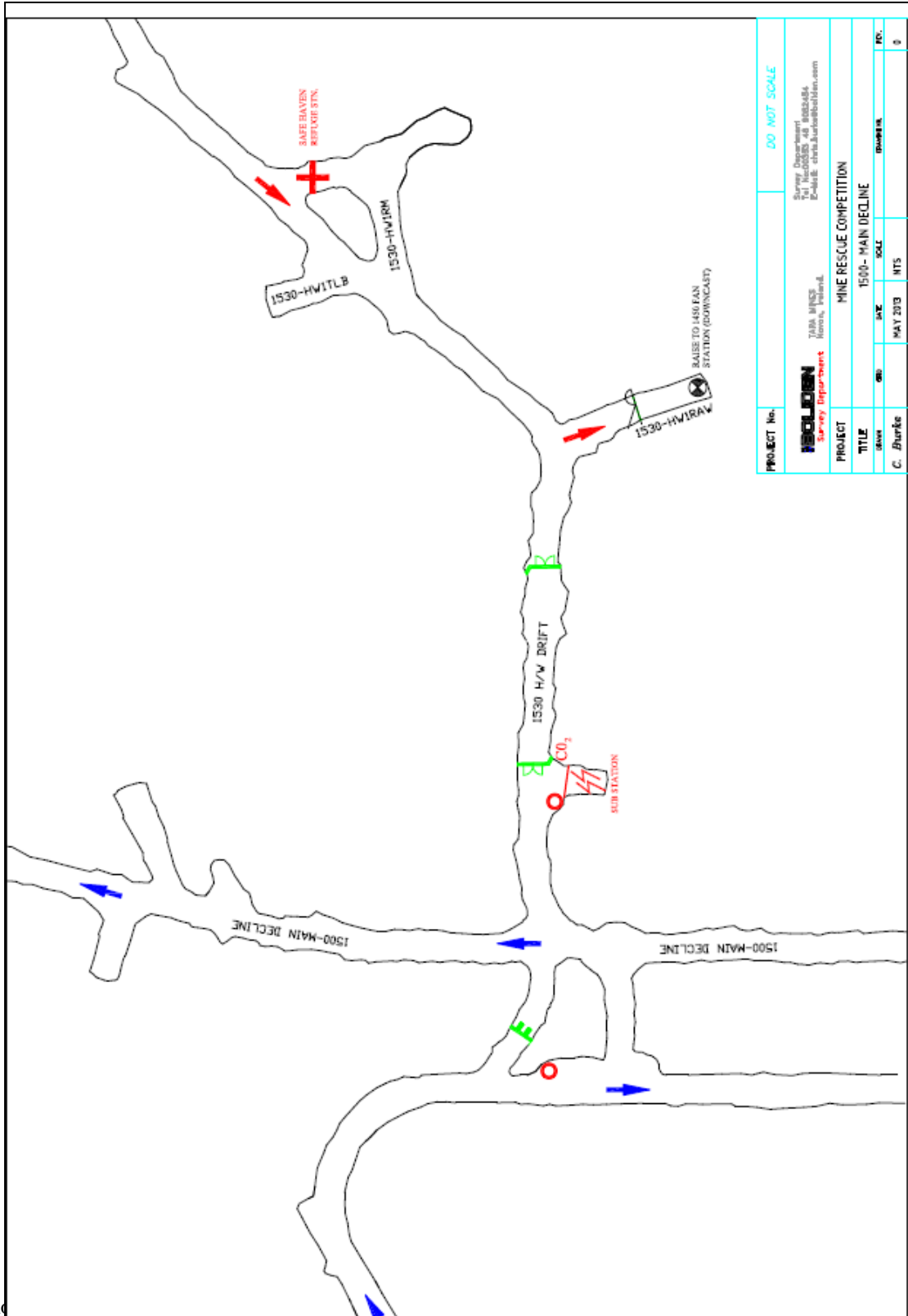


Further Information;

If suitably questioned by the rescue team captain, the shift supervisor was also able to provide the following additional information:

- *The mine is fully evacuated following emergency plan implementation*
- *The area where men were taking down pipes & their last known location could be pointed out on the plan*
- *The availability of a back-up team, doctor, ambulance etc.,*
- *The power to the electrical panel could be isolated from FAB if requested*
- *There was a means of communication with FAB available*
- *Ventilation could be controlled from emergency control if requested*
- *While plan provided estimated scaling, more accurate assessment of distances could be achieved by observation of area around FAB*

Plan of 1530 Hanging Wall Haulage Provided to Rescue Teams



PROJECT No.	DO NOT SCALE
<p>BOLIDEN TARA MINES Irish Mine Rescue Committee Tel: 00353 87 882484 E-mail: chris.kurtenbalden.com</p>	
PROJECT	MINE RESCUE COMPETITION
TITLE	1500-MAIN DECLINE
DRAWN	DATE
C. Burke	MAY 2013
SCALE	NTS
REV.	0

Review of the Search and Rescue Exercise

At Briefing Officer: On reaching the entrance to the 1530 haulage the rescue teams approached and met the shift supervisor who gave them a verbal briefing and written instructions along with a plan of the area. The exercise started when the briefing was given and captain was advised that they had 40 minutes to complete the exercise.

Most teams fully understood the briefing quite quickly and immediately commenced planning the search and rescue of the 2 missing miners with their team but most neglecting to properly establish their fresh air base, (F.A.B.).

While most teams asked the briefing officer appropriate questions some failed to ask critical info, such as the location of missing miners on the plan, isolation of power to electrical panel or availability of an appropriate fire extinguisher, effect on ventilation control, etc.. Surprisingly one team completely failed to interpret the plan while another failed to ask for or bring any form of fire extinguisher.

Establishing FAB (fresh air base) has several basic elements, checking the atmosphere, checking the roof and sides and establishing communications. Not all rescue teams did this, most just assuming they were at FAB even though the written instruction advised them to establish FAB. In some instances a cursory effort was made at establishing FAB but was not up to specific requirements.

All rescue teams did not appreciate the need to isolate electrical power from the electrical panel and the need to put out the fire with an appropriate fire extinguisher. To improve all teams speed in getting away from FAB it was decided to advise teams when 10 minutes had elapsed, however this was only required for one team. While donning breathing apparatus was done quite differently by each team, it was generally efficient, but there is some concern that some teams may just be going through the motions and not actually checking critical issues. Almost all teams failed to check stretcher and equipment for the task.

Travelling inbye: On leaving the FAB each rescue team should have left instruction as to where they were going, what they were about to attempt and their expected time of return. This was not done by all teams. Before passing through a vent door particularly knowing that a fire was involved even though it was said to be some distance away, the team should check for heat and establish that nobody was at the other side, this was done very well by some but not by all teams. On passing through the first vent side door and again on passing through the second vent side door the rescue team captain should immediately check his team and for any gases as his teams were entering a new and unknown atmosphere. Again

some teams checked the general condition of the area and sampled the atmosphere to establish any potential hazards each time and some teams failed to do this.

On passing the fans on the RHS on the way inbye, the electrical fire is clearly visible, teams were advised of increased levels of toxic gases and visibility reducing to just 3m. Again this should have triggered the captain to check his team, particularly “No Smoke Captain” and for the team to link together and span across the drift. While communication with FAB was not critical up to this, it would be good practice to advise FAB where the team were and that they had now entered smoke and were approaching the fire, however many teams failed to communicate with FAB until actually starting on their return. Where a team gets into difficulty in real life scenarios, having failed to keep FAB updated on their approximate location and conditions may result in difficulties in instructing a back-up team.



At this stage the teams were approaching the fire and on getting to the cross-cut would have seen a light flashing from the safe haven/refuge chamber. It was now critical to check that that miner was safe, what his injuries were and to advise him of what the team were going to do and critically to ensure that he stayed in the safe haven. Most teams did this very efficiently, however one team entered the safe haven which was unnecessary. It would have been good practice to allocate a rescue team member to stand on the haulage to

ensure that the miner did not panic and exit the safe haven. This could be done safely as the allocated team member would have been in line of sight of his team.

Most teams checked for safety before tackling the fire, those that did not bring a fire extinguisher had to go to the safe haven to get one which was a means of penalising the oversight. A few teams allocated a team member to keep an eye on the quenched electrical panel in case of a re-ignition, which was good practice. Again, checking for team safety and for any change in air conditions was advisable as conditions improved quickly on putting out the fire.

While having ventilation reduced to ease putting out the fire and then increasing ventilation when the fire was out would have made it easier to extinguish and gained extra points, no team did this. Approaching the normet scissor lift, it was important to isolate the machine and to secure the pipes and again this was done to varying degrees. The treatment of the miner on the back of the normet who had a tib/fib open fracture to his right leg was excellent on 2 occasions and quite poor on 2 other occasions which was met with varying levels of screams from the casualty according to the treatment. Treatment of the fracture was secondary to ensuring and monitoring breathing and pulse as this miner had been exposed to very high levels of CO & NOx gases. Placing the casualty on the stretcher had similar variance one team actually man handling him off the deck of the normet without being placed onto the stretcher. Again one team excelled here sliding the stretcher through the side handrails of the normet which ensured maximum control of the stretcher and minimising possible handling issues. Marks were available for advising FAB on each major point of the exercise such as, "found man safe in safe haven", "fire now out", "injuries of miner hit by pipes", "returning to FAB", etc. Many teams failed to secure these points.

Travelling outbye: Transporting the stretcher to FAB with casualty 2 was carried out in a competent manner but with varying levels of control on the co-ordination of lifting and setting down. Taking the casualty from the safe haven presented no difficulty if the fire had been put out efficiently as conditions would have returned to normal. Rescue team travelling routes, on the way in were clearly marked with glow sticks or direction boards by all rescue teams allowing speedy return to FAB. Rescue team captains have to show restraint and maintain control of their team when travelling out from an incident. They should check pressure gauges, team members and casualties prior to moving off. Stretcher drills were carried out well with all rescue teams practicing good sound manual handling techniques by stopping and rotating places on the respective stretchers. That said, some

lifting and lowering coordination was suspect and needs to be given greater care to prevent injury to team members. Getting a loaded stretcher through the access point at the vent doors posed some difficulty and captains needed to give clearer instructions. Team comfort was checked and environmental readings taken when applicable.

Return to FAB: All rescue teams fully completed the return journey to the FAB with both casualties, most rescue team captains appreciated the importance of checking their rescue team, condition of casualties and sampling the atmosphere before uncoupling to give a de-brief. Reporting back should be concise and accurate, with the information given to the FAB official annotated on the plan. This information will generally form part of an official investigation and it is therefore imperative that the information is recorded accurately. This was done fairly well by all rescue team captains, detailed information on data such as location of gas samples, the location of the extinguished fire, the condition of the accident scene, where casualties were found and timing marked on the plan.

Every team put in a huge effort to complete the task and showed commitment and innovation when faced with difficulties, but as with all competitions the rescue team who followed the correct procedures and completed the test scored the higher marks.

What went well?

- Understanding the brief and getting away from FAB.
- Leadership from team captains and team support.
- Allocation of tasks and general teamwork with 100% effort shown by all.
- Breathing apparatus testing and coupling up procedures.
- Overall control and confidence shown by all captains.
- Controlled approach to each element of the test.
- Appreciation of need to isolate power from panel on fire.
- Understanding of ventilation flow.
- Prioritising of putting out the fire.
- Monitoring the breathing of casualty 2 for signs of deterioration.
- Reporting back to briefing officer at FAB and hand over.

Points for Improvement

- Establishing FAB.
- Checking communications with FAB early in exercise and reporting progress at critical times.
- Checking atmosphere and team safety particularly when conditions change.



- Ensuring that all necessary equipment particularly that an appropriate fire extinguisher is carried with the rescue team.
- Checking for casualty injuries and placement on stretcher.
- Handling of stretcher through difficult areas, e.g. off normet, through vent doors.

The Physical Fitness Competition

The Scenario



You are a Rescue Team which has been called to a mining area in order to evacuate trapped men. The Emergency Control Group have come up with a plan to reverse the ventilation flow in the affected area.

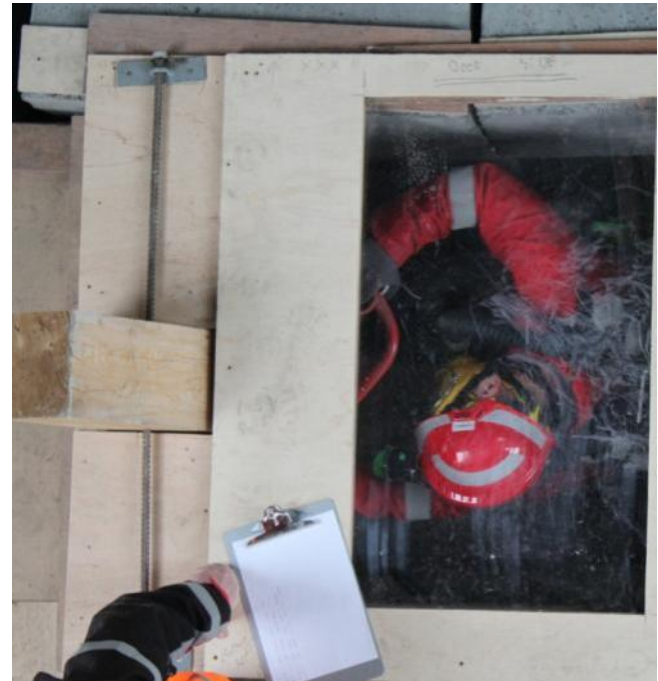
To achieve this you are requested to get under oxygen and enter the mine via the old 1-1 lens (see layout map provided). This is an old disused part of the mine and you will encounter a partial failure of one of the backfill bulkheads, this must be cleared in order to gain access to the 2 vent raises marked on your map/layout. Both of these vent raises were down casting, in order to change the vent flow to the trapped miners you were requested to seal the top of each vent raise using timber support and sand bags leave the vent raise with the man-way access open to aid air flow.

Both down casting raises were 30 metres deep, you must follow the route of travel as shown on the map.

All the materials required to complete the task have been provided at the entrance to the area.

No mine radio communication is allowed.

All verbal communication must be via the tunnel access.



Summary of Outcome

Firstly, I'd like to offer my thanks to Tara Mine for inviting me to assist them, and Joe Rice for his steadfast commitment to the competition and Mine Rescue generally.

To all teams, not every task or rescue attains its ultimate goal of either being finished, or rescue completed. We found this task just that little too much to complete, however the scenario drawn up was realistic indeed.

Even the scenario to me was achievable with the right planning and attitude, AND with just a slightly different saw could have been almost easy. I would like to ask of teams for any physical competition such as this to practice with saws of different design, cutting straight, cutting in difficult positions.

The set of the physical was extremely well made, of solid construction and well thought out.

Obviously after the fact, the sequence for teams should have been;

- Deploying team to different tasks,
- clearing chippings,
- cutting 8" timber,
- filling sandbags (correct number)
- and preparing other items for transportation

Every team gave it their all right up to the whistle, although the objective was not completed by ANY teams, there were no failures in this task.

As always we see some teams going in with all guns blazing, couple this with correct team work, and with a strong captain, this is generally the key to success.

It showed a team can be made up of members from more than one mine, AND do well.

And finally, it does emphasise that we need a proper apparatus team run through of all these aspects in order to prove its achievability. We have teams that are willing to do this that for one reason or another can't take part, let's use them.

As a rescue officer it is my task to deploy captains and teams into hostile environments and yes, in to harms way, these competitions and exercises give us the power to practice and gauge our expertise, during emergency times, I would have no hesitation in relying on any of the teams that took part. Well done.



The First Aid Competition

This Scenario was based on a real situation. We added the scene where one of the intruders used a knife to force the security guard to open the barriers and to keep the rescuers at bay in order for them to escape. The emphases on first aid training being on the safety of the team, we were interested in seeing how the leader would react in this situation.

The Scenario

There was an intrusion by a number of people onto the site at Tara Mines with a view to stealing copper wiring.

They located a vehicle on site which had the keys left in the ignition.

As they approached the security barrier on the way out one of the intruders approached the security guard who refused to lift the barrier, whilst the remaining intruders in the vehicle attempted to ram the security barrier.

A number of people have been injured.

You are required to examine, treat and remove any casualties you find to ambulance bay.

The most serious casualty is to be loaded into the ambulance for removal to hospital by the team.

A report of the injuries found and treatment given will be made by the team leader to the adjudicator, but not before all the casualties have been removed from the scene.





Special Thank you to:

Casualties on the day Annette Fitzpatrick (Security Guard), Peter Mooney (Raider with knife), David Barry (Vehicle driver) and Carl Fogarty (Passenger). These people acted as casualties for FACE (First Aid Convention Europe) European First Aid Championships held in Limerick 2007 and Dundalk 2012. They also acted as casualties at numerous first aid competitions at national level.

Summary of Outcome

A tremendous effort was put in by all teams, each member of the team worked extremely hard to try and win the competition for their team. The level of first aid treatment given to the casualties was of a high standard.

This exercise proved extremely difficult for the teams as only one team finished the exercise on time. We were very pleased that no team attempted to tackle the raider yielding the knife putting themselves or their team at risk. Some teams failed to recognise the most serious casualty and removed a less serious casualty for removal to hospital.

The Bench Test & Oral Competition

The Bench Test



Further to the recent Mines Rescue Competition which took place in Boliden, Tara Mines, May 17th & 18th 2013, I would like to make the following assessment of the Bench Test event for which I was a Judge

The standard of the teams was very good, although I can appreciate that nerves and other factors come into effect when under such pressure it was noticeable that a couple of teams had not prepared properly for the task.

The faults that were placed on the sets could be very serious in a real case scenario and it would be advisable that every member of a mines rescue team be confident in their ability to problem solve these and rectify prior to using the Re-Breather.

The Bench test task that was prepared was in my opinion very precise and was based on critical knowledge that would be routine for any member of a mines rescue team.

This was the sixth year in a row that Respro has been involved with this Event and this year and overall I felt that the standard of the participants had risen slightly from last year's event.

On behalf of myself and Mervin, I would like to sincerely thank Tara Mine for the opportunity to be involved in what was a thoroughly enjoyable competition this year

Kind Regards,
John Boyd.

The Oral Scenario



The team are presented with a plan of an underground workshop and given the following information;

- It's a Saturday maintenance shift
- Two fitters were repairing a mobile unit in the Underground Workshop
- Using cutting equipment, the mobile unit has caught fire
- They failed to extinguish the fire and have retreated to the workshop Canteen which also acts as a Safe Haven
- They called for assistance as they are very concerned about the acetylene cylinder and fuel lines

The team were then given 5 minutes to look at the plan, consider the situation and told some questions within the oral will be related to the scenario.

Each team member was then given 5 different questions with 10 points available for each, if he consulted with other team members available marks dropped to 5.

Summary of Outcome

The inclusion of a plan layout and a scenario within the Oral Test on which some of the questions were connected added some reality and reference points for rescue teams. Each team member was placed in the spotlight on his turn to answer questions posed. The outcome of the Oral proved that all rescue men are both very well tutored by their trainers and absolutely committed to their work as rescue team members. As questions were posed to each team member, some excelled answering every question without hesitation and seemed they could have answered for all the team. Some struggled but rarely deferred to other team members not wanting to loose marks.

The scoring by teams was generally good but was exceptionally high for one or two teams. One area that teams may need to study more on was the effects of fire and the limit values of toxic gases. The indepth knowledge demonstrated is obviously the result of many hours studying and self-questioning to be able to perform under pressure in test conditions.

Conclusion

New Boliden Tara Mines, its management and all involved (too numerous to mention) must be congratulated in the running of a truly excellent competition. Many hours of detailed preparation were expended by all involved in planning the various events to make each element fair, challenging, but beneficial for all the teams competing. All teams showed exceptional skill, knowledge and ability in the professional way they approached each challenge. The standard of performance right from the first exercise on the Friday to the last team to perform on the Saturday showed great dedication by each individual to being the very best in all aspects of search & rescue work that they can be.

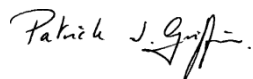
While the Oral & Bench Test went without a hitch teams and individuals put in the spotlight on their in-depth knowledge of equipment checking and rescue practise rose to the challenge and generally scored very high marks. Including a scenario within the Oral this year put an element of reality to how teams approached the questions posed and in fact if questions were reviewed by teams after the oral, it would have set them up well in dealing with the S&R the following day. The first aid while it was unusual could in fact happen at any location and a rescue team being challenged by an intruder wielding a knife must have thrown some in relation to just what they were dealing with. Again, the level of skill in dealing with a wide range of very serious injuries was exceptional.

Reflecting on the physical fitness and search and rescue which are generally the most challenging exercises some may say that the physical was too difficult and the S&R was too easy. While getting past the 8x8 obstruction, in a confined space in the physical fitness did prove to be a huge challenge and too difficult, it was still a good test of how a team worked together against the odds and how they went as far as they physically could in dealing with the problem faced.

Establishing a fair marking scheme is always a challenge for those setting the competition and probably most difficult of all is setting the marking scheme for the S&R. There are always a significant number of variables, variations in how teams will approach the task and nearly all teams doing something completely differently that may not have been foreseen in the scoring. There was some concern among the judges that the marking system for the blue ribbon event, the S&R exercise, can often place too much emphasis on simply completing the task at whatever cost. This year could be said to be a “back to basics” exercise, as a team that simply charged in, got the two casualties and charged out again and de-briefed had in fact little chance in winning. Critically, the team that followed procedure,

ensuring safety of team members and casualties, dealing with all issues correctly but not making it back to FAB stood a better chance of winning than those that might take too many chances in retrieving the casualties.

The results will show that all teams competing are all of a very high standard and little really separate them in any competition. The most important aspect of this competition is the practice it gives team members to work together under pressure which will stand to them if and when faced with the reality of real mines search and rescue work. Over recent years far too many rescue men have perished in attempting to come to the rescue of stricken colleagues. If the only thing learnt in this competition was the importance of “team safety”, it was a competition well worth having.



Patrick Griffin
(Senior Inspector – M&Q)

Report prepared with assistance from all adjudicators;

Search & Rescue

John Whyatt, HM Inspector of Mines, UK
Paddy White, Mine Captain, Tara Mines Ltd.,

Physical Fitness

Brian Robinson
Paddy McManus

First Aid

Jim Mooney
Stephen O'Donoghue
Hazel O'Donoghue
Maria Mooney

Oral & Bench Test

John Boyd – Respro Ltd
Mervin Nolan – Respro Ltd



Final Placing

	1st	2nd	3rd	4th	5th	6th
Team Safety:	Lisheen	Galistar	Tara Mines	Salt Union	Irish Salt	-
Bench Test & Oral	Tara Mines	Lisheen	Galistar	Salt Union	Cleveland Potash	Irish Salt
Fitness:	Irish Salt	Tara Mines	Galistar	Salt Union	Lisheen	-
First Aid	Tara Mines	Lisheen	Galistar	Salt Union	Irish Salt	-
Search & Rescue	Tara Mines	Lisheen	Irish Salt	Salt Union	Galistar	-
Best Captain	Tara Mines	Irish Salt	Lisheen	Salt Union	Galistar	Cleveland Potash
Best Irish Team	Tara Mines	Lisheen	Galistar	Irish Salt	-	-
Best All Ireland & UK Team	Tara Mines	Lisheen	Galistar	Irish Salt	Salt Union	Cleveland Potash

Team Safety Award – Lisheen Mines



Fitness Award – Irish Salt



Best Captain Award – Tara Mines



Tara Mines Awards



- Bench Test & Oral Award
- First Aid Award
- Search & Rescue Award
- Best Irish Team Award
- Best All Ireland & UK Team Award

Event Scores

FITNESS EXERCISE:	ISME	Lisheen	Tara	Galistar	Winsford	Maximum
						200
Captain	40	15	40	25	32.5	40
Team Safety	15	20	15	22.5	10	50
Discipline Total	45	40	42.5	40	37.5	110
Exercise Placing	1	5	2	3	4	

FIRST AID EXERCISE:	ISME	Lisheen	Tara	Galistar	Winsford	Maximum
						400
Team Captain	8	15	12	5	7	15
Team Safety	8	15	12	5	7	15
Casualty 1	42	68	86	66	46	100
Casualty 2	65	90	88	81	81	100
Casualty 3	55	74	91	69	45	100
Casualty 4	43	82	82	76	44	100
Discipline Total	205	314	357		216	400
Exercise Placing	5	2	1	3	4	

	ISME	Lisheen	Tara	Galistar	Winsford	Maximum
UNDERGROUND SEARCH & RESCUE						137
Captain	25	30	30	30	95	32
Team Safety	17	27	26	26	28	33
Discipline Total	100	116	118	108	30	137
Exercise Placing	4	2	1	3	5	

OVERALL SAFETY AWARD	ISME	Lisheen	Tara	Galistar	Winsford	Maximum
Placing	5	1	3	2	4	

	ISME	Lisheen	Tara	CPL	Winsford	Galistar	Maximum
BENCH TEST	40	52	60	76	68	48	100
ORAL	196	250	267.5	176	189	228	300
WEIGHTED BENCH/ORAL	236	302	327.5	252	257	276	400
Placing	6	2	1	5	4	3	



Irish Gypsum Ltd



BEST IRISH MINE	ISME	Lisheen	Tara	Galistar
Placing	4	2	1	3

BEST TEAM CAPTAIN	ISME	Lisheen	Tara	CPL	Winsford	Galistar
Placing	2	3	1	6	4	5

	ISME	Lisheen	Tara	CPL	Winsford	Galistar
BEST OVERALL RESCUE TEAM						
Placing	4	2	1	6	5	3