

40th Intercollegiate Mining Competition

March 29th – 31st 2018 Camborne School of Mines – Camborne, Cornwall

Alex Perry – Organising Committee President

Abstract

After 15 months of planning and preparation, the CSM have successfully hosted the International Mining Games 40th competition at King Edward Mine. The competition saw 39 teams from 7 countries participate in the 7 gruelling events which make up the competition. CSM entered 7 teams overall. Team Sandvik, CSM's veteran 1st team, were extremely proud to lift the overall competition trophy for the first time ever! Along with CSM ladies 1st team coming 2nd overall after the tiebreaker which had them at joint 1st originally. Team Ballast Phoenix also did exceptionally well coming 3rd. The competition celebrates traditional mining techniques, encouraging comradery between schools and remembers all who have lost their lives in the mining industry. The teams are preparing next to travel to Reno, Nevada, USA with hopefully a men's, women's and co-ed team.

New Training Grounds

With the news of losing the Holman's Test Mine, the CSM's original training ground for IMG, we worked fast to find another. A huge thanks to everyone at Strongbow Exploration for donating an area of South Crofty for us to train on, not just on surface, but also underground for drill training. The teams look forward to continuing drill training at South Crofty Mine, and with any luck, some may graduate to drill and work there.

Building the Competition Ground

Planning of the CSM hosting of the IMG began back in December 2016 when myself and David Coulton sat down in the kitchen with Oakley Turner, organiser of the CSM 2012 hosting, to put together a plan of action, business proposal and budget for the mammoth task ahead. As it does, time flew by and before we knew it sponsorship was coming in, kit was being ordered and received, and the site was coming together to look more like a competition ground. The original competition site was a boggy field. Thanks to our first platinum sponsor, Ballast Phoenix, it was turfed up, aggregated and top layered, to create not only a competition site, but the ever needed new car park which King Edward Mine (KEM) has been in



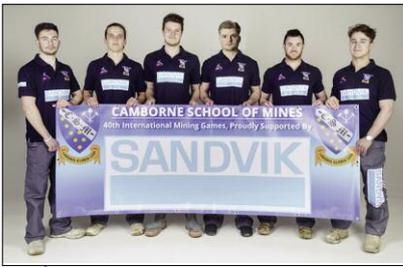
need of. A small legacy and token of appreciation for CSM to leave behind. Next the shipping container came in as a storage facility and only the bare bones were required in order for KEM to become the new permanent training site. By January 2018 it was almost complete, with 5 large concrete drilling blocks being cast in-situ, a 35m levelled area for the muck

run, 2 x 25m lengths of rail for the muck run being laid and all the other smaller bits and pieces falling into place. We would like to thank Peter Sheppard of DrillServe who has provided endless hours of overseeing heavy plant equipment work, sourcing rails, providing and servicing the rock drills, manpower during the competition in the event of faults and the countless other jobs he has lent his wisdom too. No job was too large or too small and he was always at the end of the phone for those nerving tasks that required a bit more expertise. The final days before the competition as with any finishing up project were the most hectic, with the arrival of the hand steel blocks which still needed painting, putting up all the sponsor banners, spectator fencing and any last minute jobs. Still, above all the calculated panic and slight stressing, it was incredible to see the site come together, ready for the competition.

The Teams

Due to hosting, Camborne School of Mines was able to enter 7 teams this year. 5 men's teams and after a strong push, 2 women's teams which we were exceptionally proud of after being unable to even pitch a co-ed team in Kentucky, 2017. After a strong first team effort of an almost entirely new team in 2017, Team Sandvik (Camborne's A team) considered themselves strong favourites for the competition, as well as Team Ballast Phoenix (Camborne B's) which were ever hot on the heels of them. The newer teams were Team Padley & Venables (Camborne C), comprising an entire team of fresher's, however all are very strong and fit as they are all from the CSM rugby team. The D team (Central Asia Metals and Deswik) comprised a mixture of second and first years who after a year's experience this year possibly stand to fill the spots of those graduating in the higher teams in the 2019 competition. The final men's team (Event Horizon and Strongbow Exploration) comprised of all Masters degree students who found it difficult to find time for training due to the intense lecturing hours and varying timetables. However,





after a late start, seasoned veteran Dominic Howard managed to train a full team in just 10 weeks. The women's team originally comprised of some nervous second years and some fresher's. As they were welcomed and settled into what is sometimes deemed a very macho competition, they became well known and all came into their own during training. Again, late on, a Women's Masters team joined of which some took to the events like ducks to water. A late decision saw the best of the 2 teams merged together to make a very strong women's A team that could potentially win their division. It was great to see the return of 2 CSM alumni teams this year as well as 'Team MUMI' who comprise many CSM graduates. It is always great to see alumni and hear stories of old and where the reputable degree of CSM has taken them. All of which showed their prowess on the field, still holding up skills learned at Camborne School of Mines, each winning awards and placing well within the competition. Congratulations to CSM Alumni D (2nd overall and jackleg and 3rd in hand steel and survey), CSM Men's alumni (3rd overall, muck and track, 1st in swede saw) and Team MUMI (7th overall and 1st in survey).

The Competition

The competition saw 39 teams in total, from 7 countries compete over all 3 days of the event. Thursday training day was the real test with the smallest number of helping hands and all teams trying to test and break the kit. Some of which succeeded, however this was only minor, and dealt with very quickly thanks to Peter Sheppard's team at Drillserve. Albeit Camborne's stomping ground some of the teams were still nervous on site, seeing their competition for the first time. The home advantage certainly helped to settle the nerves once all got into the swing of things and the long weeks of training prior enabled the natural working patterns to kick in. The key overseas



contenders from the men's competition (Montana Tech and WASM Wombats) put in solid times and distances across the board however this didn't rattle too many cages amongst Team Sandvik and Ballast Phoenix. The co-ed, women's and alumni competitions were slightly harder to gauge however due to the new rule increasing the number of women's teams from 2 to 8 this year. No-one was certain who the strong contenders were. After a gruelling long day on the kit though, everyone had worked hard, become familiar with the equipment, adjusted to any rule changes and were now preparing themselves for the main event. From an organisation aspect, all 3 days of the competition went smoothly with only very minor challenges to overcome. Competition wise, everyone was in good spirits despite the moderate weather and occasional downpour. Team after team gave it everything they had on each event, and many supplied last-minute coaching to our new European teams which did surprisingly well considering it was their first ever time competing with very little training. Time and depth records were set on each event, only to be short lived before another team managed to shave off seconds or gain those extra few millimetres. Attached at the end of this report is each CSM team's individual captains report for a more in-depth view of how the events went. Awards Ceremony The awards ceremony this year was held on CSM's current home grounds, The University of Exeter's Penryn Campus in Falmouth. With the sports hall completely decked out, all the

teams sat down for the last IMG meal before the announcing of the winners. In typical fashion individual event awards were given first, leaving the long-awaited unknown survey results for last. We would like to thank Pat Foster for taking the time to remind us all of the reason of the games, and taking a moments silence that all took part in. With that, noise broke out again in cheers of celebration as the announcements of the overall winners for each division were read out in the order of Alumni, Co-ed, Women's and finally Men's. We would like to congratulate everyone who took part in the 40th International Mining Games, particularly the newcomers from Europe (we hope to see you again) and further congratulations to everyone who won awards. As anticipated, we are exceptionally pleased to announce our CSM ladies A team came joint first overall, representing Mopani, MUMI and Kamoto Copper. The fist tie breaker being most top places of 1st , 2nd and 3rd however this lead to a continued tie. The second tiebreaker being the closest survey result which went to WASM Wombats Women's. CSM ladies A team therefore placed 2nd overall in the competition, an outstanding position considering this was the first year any of these ladies had competed and the team was muddled together last minute out of all the women in training. After a light numbered few weeks of training leading up to the competition, Team Ballast Phoenix were questioned on their capabilities to challenge Team Sandvik. Despite this they achieved 3rd in survey and gold pan, and out of nowhere, 1st in the swede saw, which saw them receive 3rd overall. Finally, for the first time ever, Team Sandvik (CSM A) won the competition outright, placing 1st in muck, track Stand and air Leg , 2nd in hand steel, 3rd in swede saw, with the only non-podium overall finish's being gold pan and survey in which we came 4th and 5th . The team had been working tremendously hard to ensure this was a possibility, training 6 times a week, 4, 7am training sessions and the usual 2 day time sessions with all other teams. The commitment has paid off, and every member of the team are ecstatic to make history within the competition. Thank you to you all, and Sandvik for being our longest supporter of the Camborne School of Mines in the International Mining Games.

A Sincere Thank You

As ever, the success prior to and during the hosting of this competition could not have been achieved without the incredibly generous, continued and new support of our sponsors and alumni. Camborne School of Mines' successful hosting of 2018 would not have been possible without you. £160,000 was raised in total in order to make this possible. Large amounts were used to build the competition ground which CSM can now train on regularly. This is the first time CSM has had a full training ground to train on and it proved its weight in gold through winning the overall competition and all the other high achievements throughout by everyone. Not only that, as previously mentioned, the competition site can now be used as the car park for the working offices located at the back of King Edward Mine, something they have been unable to build themselves. In conjunction, it seems not many universities are lucky enough to have a full training ground and as a result, those that have, Montana Tech and ourselves, are now able to consider offering the site as a hosting ground for other universities which may wish to host but do not have the facilities. Obviously this will have to be discussed in full during consideration however looks to be a potential option. We hope you, the sponsors, feel we have successfully represented your companies and are as proud as we have been in having the opportunity to represent you on this international stage. We hope those of you that were able to attend were able to make possible business deals with other sponsors, and that many business cards were traded to the potential future mining and geology graduates. Year on year it never ceases to amaze us the incredible



support from the Camborne School of Mines Trust who are always the immediate supporters of what we students at CSM do. So a big thank you to Dr Tony Batchelor of GeoScience, Nick Wilshaw of Grinding Solutions, Peter Sheppard of Drillserve and everyone else who make up the CSM Trust. A big thank-you to our other continued sponsors, Gary Hughes of Sandvik who has been a top sponsor for several years now, Danny Callow for support from MUMI, Kamoto Copper and Mopani, Mark Pearson of Liberty Resources and CSMA USA, Bekaert Maccafferi, SRK and Minsouth. Thank you to all our new sponsors: Padley & Venables, Ballast Phoenix, Deswik, Strongbow Exploration, Event Horizon, Central Asia Metals, Maen Carne, Orica, Cornish Lithium, Blythweigh, Piran Mining, Ambercon Metals, Hummingbird Resources, AduvareGE, GoviEX, Bam Nuttal, SRK, AICL UK, Goldstone Resources, Wardell Armstrong and Cornish Quest. We certainly hope to continue working with as many of you as possible in the future and look forward to seeing you and your support at any future events. The teams would also like to give a huge thank you to all the CSM Alumni who have supported us through personal donations or time and effort. Camborne continues to be a world-renowned mining school providing an incredible start to any student's career providing excellent lecturing staff and facilities, so we'd like to extend a large thank you to Kip Jeffery, Andy Wetherelt, Pat Foster, Paul Wheeler, Sam Hughes and the rest of the staff at the Camborne School of Mines for all your help this year. As well as an extended hand to Mark Kaczmarek for donating the extra time this year to train our new drillers. All of our sponsors, helpers and supporters are greatly appreciated enabling our competing students to represent the Camborne School of Mines and you, with the greatest of pride.

The Future – 2019: Reno, Nevada

In 2019 the competition moves to Reno, Nevada. The average cost of sending a team to the games being just £12,000 per team. CSM hopes to send 3 teams, 2 Men's and a Women's team to make sure we bring back the trophy from every division. We understand that companies are already budgeting for the next financial year and would certainly appreciate any consideration of sponsorship for 2019. The captains for 2019 are Lee Rowley and Jay Innes. If you are interested in supporting the Camborne School of Mines next year, please contact Jay on jbi201@exeter.ac.uk .

Laboris Gloria Ludi

