# FINAL DEBRIEF

## **IMRC**



**CANADA 2016** 

Sudbury, Ontario, Canada August 19 - 26, 2016

## **Rules Governing IMRC 2016**

Version 2.1

Every effort has been made to make this Version (V2.1) as complete and accurate as possible. It is advisable, however, to check the website (<u>www.IMRC2016.ca</u>) to ensure this is the most up to date version.









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Questions regarding these rules may be directed to <a href="mailto:rules@IMRC2016.ca">rules@IMRC2016.ca</a>









## 1.0 **OVERALL**

#### 1.1 Mission Statement

The International Mines Rescue Competition (IMRC) is a biennial event. The purpose of the IMRC is to present realistic simulations that will allow organizers to:

- 1. Evaluate skills required to perform rescue operations in a mining environment.
- 2. Judge participants in an open and transparent manner.
- 3. Provide feedback to all participants.
- 4. Promote Mine Rescue through improved communication, co-operation and knowledge transfer between responders, mine operators, suppliers, regulators and educators.

#### 1.2 Notice of Rules Revisions

The 2016 International Mine Rescue Competition Organizing Committee may be required to revise or update the rules found in this or other pre-competition documents. Registered competing teams will be given notice of any revisions or updates to this or other rules documents. The current, standing rules documents will remain posted on the IMRC 2016 website prior to the competition. All scheduled future publications will be listed within this document and on the IMRC 2016 website.

## 1.3 Roles and Responsibilities

## 1.4 Chief Judge

- 1.4.1 The Chief Judge is responsible for the drafting, preparation and execution of all aspects of the IMRC. All Simulation Lead Judges, volunteers and support personnel are under the direction of the Chief Judge or his designated alternate. All scoring sheets are to be submitted by the Simulation Lead Judge to the Chief Judge for final review and scorekeeping. Any scoring disagreements that cannot be resolved amongst the Simulation Judges in their area of responsibility shall be presented to the Chief Judge for final decision.
- 1.4.2 For the 2016 International Mine Rescue Competition (IMRC 2016), the role and responsibilities of Chief Judge shall be carried out by the General Manager of Ontario Mine Rescue.

## 1.5 Simulation Lead Judge

- 1.5.1 Reporting to the Chief Judge, the Simulation Lead Judge is responsible for coordinating all Simulation Judges in their area of responsibility, and assisting in the interpretation of the Rules Governing the IMRC 2016. The Simulation Lead Judge will guide each competing team through their area of responsibility and ensure understanding of the given scenario by the team and/or Technical Translator. The Simulation Lead Judge is also responsible for ensuring that the field layout of their area of responsibility is reset after each team has competed, so that it is identical for each team.
- 1.5.2 For IMRC 2016, the role and responsibilities of Simulation Lead Judge shall be carried out by the individuals appointed by the Chief Judge prior to the event.









#### 1.6 Simulation Judge

- 1.6.1 Reporting to the Simulation Lead Judge for each competition task, the Simulation Judges will be responsible for observing the actions of competing teams and scoring each team according to pre-determined requirements. Simulation Judges must attend the official judges meeting prior to the competition, where they will be provided with information on their duties and scoring areas of the competition.
- 1.6.2 Simulation Judges will be selected and assigned by the Chief Judge from the list of qualified individuals that submit an Online Judge Application via the IMRC 2016 website before the listed deadline.

## 1.7 Scorekeepers

- 1.7.1 Scorekeepers will be responsible for collecting and compiling the official scoring documents completed by Simulation Judges for each competing team at each competition event or task. The Scorekeepers will be stationed in an area of seclusion and will be in contact with the Simulation Lead Judges and Chief Judge only.
- 1.7.2 For the IMRC 2016, the role and responsibilities of Scorekeepers shall be carried out by the individual(s) appointed by the Chief Judge.

#### 1.8 Scribe

- 1.8.1 The Scribe will follow each competing team through each competition task and shall be responsible for transcribing time specific actions of each competing team in English. Annotation of team actions will be made from the beginning of each scenario until the Simulation Lead Judge calls the problem "complete". The notes compiled by the Scribe shall be used by Simulation Lead Judges as well as the Chief Judge to confirm the validity of competition scoring and eliminate judging errors.
- 1.8.2 For IMRC 2016, the role and responsibilities of Scribe shall be carried out by the individual appointed by the Chief Judge.

## 1.9 Competing Teams – Member Roles

1.9.1 Incident Commander (Briefing Officer)





Since 1999





- 1.9.1.1 The team Briefing Officer (Incident Commander) is ultimately responsible for oversight of teams while they work through simulated underground emergency tasks.
- 1.9.1.2 The actions of the team Briefing Officer as it relates to team competition events shall be judged and scored in conjunction with the team score.

#### 1.9.2 Captain

- 1.9.2.1 The team Captain shall take charge of, and be responsible for, the discipline; general safety and work performed by his/her team; and should take orders only from the Briefing Officer.
- 1.9.2.2 The actions of the Captain as it relates to team competition events shall be judged and scored in conjunction with the team score.

## 1.9.3 Team Member

- 1.9.3.1 Each Team Member shall operate under the direction of the Captain at all times during all competition tasks.
- 1.9.3.2 The actions of the Team Members as it relates to team competition events shall be judged and scored in conjunction with the team score.

## 1.10 Technician

- 1.10.1.1 Competing Technicians will be responsible for diagnosing and repairing multiple pieces of emergency equipment during a separate Technician competition.
- 1.10.1.2 The Technician will not participate in any team task, exercise or event and will not contribute towards team scoring in any manner.

## 1.11 Technical Translator

1.11.1.1 For IMRC 2016, the role of the Technical Translator shall be carried out by an individual appointed in advance of arrival by the competing team. The Technical Translator will be responsible for following the team and converting both spoken language and written competition materials into the working language of the competing team. The goal of the Technical Translator role is to have the team hear the interpretation as if it were the original. Therefore, the Technical Translator must be an individual proficient in technical mining and emergency response terminology.

## 1.12 Honesty, Transparency and Integrity

## 1.13 Isolation

- 1.13.1 In the spirit of fairness and equality, teams taking part in the competition must not seek or share information in advance of participation pertaining to simulation events, exercises, tasks or test. Before the start of the contest all teams scheduled to participate in competition tasks on that day will be placed in isolation.
- 1.13.2 All members of the team including technical translators and other accompanying persons will also be isolated.









- 1.13.3 No other personnel will be allowed into the isolation area other than those approved by the Chief Judge.
- 1.13.4 The time and location of the isolation area will be announced prior to the competition date.
- 1.13.5 Teams in isolation will not be allowed to communicate with personnel outside of competition organizers by any means: visually, by means of phones, cells, radio, electronic devices, and social media. Posting news or information to social media or other online information sites (eg. Facebook, Twitter) prior to the completion of all competition field events is prohibited. In case of violation or intention to violate these rules, the team will be assigned negative (penalty points) and may be subject to disqualification.
- 1.13.6 Personnel who leave the isolation area will not be allowed to re-enter.
- 1.13.7 Teams that have completed competition field events are not permitted to communicate with any teams that have not yet completed the event.
- 1.13.8 Team members may take reference material into the isolation area. The team member may not use any of this reference material during competition tasks or while completing the theory exam. Contestants will not carry personal notebooks into the contest area.
- 1.13.9 Simulation Lead Judges, Simulation Judges and other competition officials are not allowed to be in contact with any competing team members, in particular to discuss issues related to the competition.

#### 1.14 Competition Task Areas

- 1.14.1 A separate area will be provided for spectators to observe the teams during the competition. Only officially escorted spectators, photographers or news media will be permitted closer to the field exercise as approved by the Chief Judge.
- 1.14.2 All photographs of competition events and tasks will be taken by the designated event photographers. Photographs will be distributed to teams upon completion of the IMRC. Team photographers are permitted, however must stay within the assigned spectator's area.
- 1.14.3 All judges and officials shall be provided with a visible means of identification. No person except designated officials will be permitted to communicate with the teams performing or waiting their turn to do so.
- 1.14.4 Simulation Lead Judges, Simulation Judges or competition officials may not communicate with the competing team members or interfere with tasks unless a health & safety risk is identified.
- 1.14.5 Only Simulation Lead Judges, Simulation Judges or competition officials assigned to each particular competition task are allowed on the competition field for each specific event.
- 1.14.6 Following the field exercise, a brief Simulation Judges meeting will be held to ensure consistency between all of the Simulation Judges of that specific competition task or event.









- 1.14.7 Simulation Judges will complete their respective scorecards.
- 1.14.8 Simulation Judges will provide a written explanation of the merit and negative (penalty) points assigned.
- 1.14.9 After signing the scorecard, a Simulation Judge is not allowed to make any changes to it without consensus with the other Simulation Judges and the Chief Judge.
- 1.14.10 Simulation Lead Judges will collect the scorecards for their specific competition task or event and submit them to the Chief Judge.
- 1.14.11 Simulation Judges will judge in their assigned area only.
- 1.14.12 Simulation Judges must attend the official judges meeting prior to the competition. Following the official judges meeting, Simulation Judges are prohibited from communicating with members or affiliates of the competing teams.

## 1.15 Competition Review/Debrief

1.15.1 Debrief information sessions will be offered on the day following the awards ceremony. Debrief information sessions are for summary purposes only, not for the discussion of scoring or interpretation of actions. Following scoring of team actions by Simulation Judges there will be no appeal process.

## 1.16 Team Requirements

## 1.17 Fitness/Medical Suitability

- 1.17.1 All team members must have a medical assessment completed no more than 12 months prior to the competition. This assessment is to confirm a team member is physically fit, and capable of performing work while using breathing apparatus during Mine Rescue activities. This assessment is to be conducted and authorized by a medical professional.
- 1.17.2 Before the competition begins, medical professionals will confirm the fitness of each team member. No one will be permitted to participate in the team events without having been found physically fit by a medical professional. Personnel with severe colds or other ailments affecting normal breathing are not permitted to wear breathing apparatus upon direction of the medical professional.
- 1.17.3 All individuals participating in the competition must be self-insured in the event of an accident or illness. Each participant will take part in the competition at their own risk and responsibility.

## 1.18 Certificate of Qualifications

1.18.1 Each member of the team must be certified/qualified in Mine Rescue and recovery activities within their jurisdiction of work. In addition, team members must demonstrate the necessary physical and mental abilities to perform Mine Rescue work.









- 1.18.2 In jurisdictions where there is a certifying organization to regulate training, team members must present a certificate of training.
- 1.18.3 In jurisdictions where there is no certifying organization to regulate training, the Mine General Manager (MGM) or equivalent authority will provide a letter of qualification for the participating team members to confirm their proficiency.

## 1.19 Personal Protective Equipment

- 1.19.1 Competing teams must be properly dressed for emergency response simulation exercises with personal protective equipment including protective headwear, chin straps, protective eyewear, high visibility apparel, protective footwear and hand protection.
- 1.19.2 Competing teams must have personal protective equipment (PPE) that meets the requirements specified as follows.
- 1.19.3 Protective Headwear

Hard hats must have a fixture for a cap lamp and a chin strap. Reflective material for hard hats will be silver. Retro-reflective striping must be applied to the front, back and sides.

Hard hats must meet the requirements found in Ontario Regulation 854, Mines and Mining Plants and applicable test requirements for at least a Type 1 Class C approval – impact protective headwear that does not provide dielectric protection.

All hard hats must meet at least one of the following standards:

- a) Canadian Standards Association standard CAN/CSA Z94.1-05, Industrial Protective Headwear Performance, Selection, Care and Use.
- b) American National Standards Institute, standard ANSI Z89.1-2003 Safety Requirement for Industrial Head Protection.
- c) ANSI/ISEA (International Safety Equipment Association) Z89.1-2009

Please note, all hard hats should be affixed with an attachment point for a cap lamp (miner's lamp). Any team unable to obtain such an attachment should notify IMRC 2016 organizers to discuss alternatives.

## 1.19.4 Protective Eyewear

Protective eyewear must be safety spectacles and have permanently affixed side shields. Protective eyewear must fit properly and manufacturer's recommendations for use must be followed. All eye protection must meet one of the following standards:







- a) Canadian Standards Association, standard CAN/CSA –
   07 Eye and Face Protectors.
- b) American National Standards Institute, standard ANSI 03 and/or Z87.1-10.

#### 1.19.5 High Visibility Safety Apparel

Safety apparel must be Class 3, Level 2 coveralls or pants and sleeve shirt with the following features:

- a) Be made of fluorescent background material
- b) The apparel must have retro-reflective striping that measures 50 millimetres in width
- The striping must entirely circle each arm and each leg just below the knee) as well as the waist
- d) The striping must be arranged in two vertical lines on front extending over the shoulders and down to the and be arranged in an X on the back portion covering upper body.
- Team members must have their team number attached to the left arm at the shoulder (starting with team captain, #5 for the vice-captain, #6 for the spare finishing with #7 for the briefing officer)
- f) The apparel must be flame resistant and suitable for exposure to flash fires or short duration flame exposure.

All safety apparel must meet the following standards:

- a) Ontario Regulations 854 Sections 262 (2), 263 (2) and 263 (3)
- b) Canadian Standards Association standard CAN/CSA Z96-09

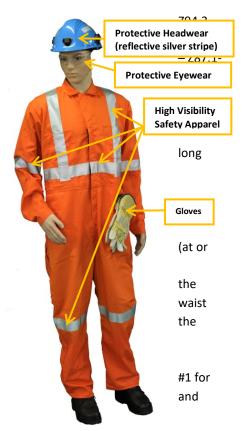
## 1.19.6 Hand Protection

Gloves should provide protection from friction, cuts and punctures. Gloves must be suitable for a variety of tasks that may include rope work, firefighting and the use of a variety of hand tools in underground and surface environments. Different types of gloves may be used in each simulation.

## 1.19.7 Protective Footwear

Protective footwear must be rubber, leather or ballistic nylon. Rubber boots must have metatarsal protection, puncture resistant soles and meet CSA Grade 1 impact requirements. Leather or ballistic nylon boots must be omega rated, have puncture resistant and electric shock resistant soles, integral or external metatarsal protection and meet CSA Grade 1 impact requirements as shown below.

All safety footwear must meet the following standard:











a) Canadian Standards Association standard - CAN/CSA - Z195-09 Protective Footwear



1.19.8 Standard

Personal Protective Equipment

The following items will be supplied during IMRC 2016 field tasks or events:

- a) Cap Lamps
- b) Mine Rescue travel restraint belt
- c) Cap lamp battery pouch (if required)
- d) Link line
- e) Medical examination gloves

## 1.20 Team Equipment

- 1.20.1 Team Supplied:
  - a) PPE as per above
- 1.20.2 IMRC 2016 Supplied:
  - a) Miners belts
  - b) Link lines
  - c) Cap lamps (with pouch)
  - d) Medical examination gloves
  - e) All rescue equipment required for simulations

## 1.21 Official Language

1.21.1 The official language for all of the events and communications will be English. Every effort will be made during competition task planning to minimize any disadvantage to competing teams due to a lack of proficiency in English or the use of a Technical Translator.

## 1.22 Team Demographics

1.22.1 Team Member Requirements – each candidate must be:









- a) A minimum age of 18 years old
- b) In good health and physically fit
- c) Clean shaven, with no facial hair to interfere with the facemask seal
- d) Calm and self-controlled in an emergency or a dangerous event
- e) Known to be of good judgment and initiative
- f) Capable of performing long, arduous and physical labour
- g) Familiar with underground mining conditions and practice
- h) Certified in first aid training
- i) An employee of a mining company/government agency.

## 1.23 Competition - General Rules & Requirements

## 1.24 General Rules

- 1.24.1 There will be a predetermined allotment of time, prior to the day of scheduled competition events, for each team to review the equipment that may be used in the competition(s). This equipment review period will be assigned by competition organizers to coincide with the IMRC 2016 schedule of events.
- 1.24.2 The IMRC 2016 Overall Team Competition will consist of five available scored events. Each team must participate in four of the five available team events to be entered in the Overall Team Competition rankings. Three team events are mandatory with the fourth team event being a choice between one of two events. All of the team events will have a weighted scoring value contributing to the Overall Team Competition scoring as follows:
  - a) Team Underground Mine Rescue Simulation (Mandatory) 40%
  - b) Team Firefighting (Mandatory) 30%
  - c) Team Theory Exam (Mandatory) 10%
  - d) Final Scoring Task 20%
    - 1. (Option 1) Team First Aid
    - 2. (Option 2) Team High Angle Rope Rescue
- 1.24.3 Teams are encouraged to participate in all five events. Their fifth event will not count in the Overall Team Competition score, but will qualify for the awards associated with the individual event.
- 1.24.4 Teams electing not to participate in the Overall Team Competition are still eligible for the awards associated with the individual events in which they participate.
- 1.24.5 Each competing team will be comprised of seven team members:
  - 1. One Incident Commander (Briefing Officer)
  - 2. One Captain
  - 3. One Vice Captain and
  - 4. Four team members.









Upon following registration and prior to the commencement of competition tasks, teams must clearly define the seven individuals selected to compete and those individuals in a non-competing spare or reserve role.

- 1.24.6 Teams may also include a Technician to compete in the individual Technician Competition. All other people travelling with the team will be considered spectators and will be restricted from the competition designated task area. All spectators will be guided to the competition task viewing area.
- 1.24.7 Technical Translators, for the purpose of assisting teams during competition tasks, will <u>not</u> be provided by the IMRC 2016 organizing committee. Technical Translators are in addition to the seven competing team members outlined above. Technical Translator duties are to provide translation only. They may not assist with competition tasks or discuss team actions with competing team members.
- 1.24.8 Technical Translators will have equivalent access to the designated task areas as the competing team members.

#### 1.25 Team Member Substitution

1.25.1 If a medical professional determines that a team member is medically unfit to participate in the event, a substitution will be allowed. The unfit team member will be allowed to switch positions with their spare team member. All substitutions must be approved by the Chief Judge prior to the team leaving isolation.

#### 1.26 Penalties

- 1.26.1 Prior to commencement of each competition problem, a check based on direct observations shall be made to determine whether any of the team members are unfit to participate in the competition task. Where there are reasonable grounds to believe any physical or mental factor renders a team member unfit to compete, the Chief Judge will investigate. If the Chief Judge agrees, the team member will be disqualified and the team may face further penalty up to and including disqualification.
- 1.26.2 The Chief Judge will investigate when there are reasonable grounds to believe that a person has attempted to assist/influence a team by providing information related to any part of the competition, prior to or during a competition problem. If the Chief Judge deems that such a transgression has occurred, the team may face penalties up to and including disqualification.
- 1.26.3 The Chief Judge will investigate when there are reasonable grounds to believe a team or member received information concerning a competition problem. If the Chief Judge deems that such a transgression has occurred, the team may face penalties up to and including disqualification.
- 1.26.4 Information or pictures about the competition cannot be posted to digital communication channels or social media outlets until the awards ceremonies are complete. The Chief Judge will investigate if any team, team member or team representative is found to have posted competition information to digital channels or social media prior to such a time. If the Chief Judge deems that such a transgression has occurred, the team may face penalties up to and including disqualification.









- 1.26.5 The Chief Judge will investigate if any team, team member or team representative causes disruption during the competition. If the Chief Judge deems that such a transgression has occurred, the team may face penalties up to and including disqualification.
- 1.26.6 Any penalty applied will be decided by the Chief Judge. Teams will not be allowed to appeal the decision or penalties assessed. All decisions will be final.

## 1.27 Scoring

- 1.27.1 Examples of performance checklists (scoresheets) with merit/penalty values (scoring points) will be provided to registered teams in advance of IMRC 2016 for training purposes.
- 1.27.2 Interpretation and scoring in each competition event will be pre-determined by IMRC 2016 organizers and agreed upon by Simulation Lead Judges and Simulation Judges in advance of the event and at the judge's precompetition meeting.
- 1.27.3 The Simulation Lead Judge and Simulation Judges for each competition event will discuss each competing team's performance and must reach consensus on the scoring of each task.
- 1.27.4 The Chief Judge will have final oversight on the interpretation and scoring of the actions of the teams. The decision of the Chief Judge may supersede the evaluation of the Simulation Lead Judge and Simulation Judge for that competition task and will be recognized as the final ruling in the event of a disagreement regarding the scoring.
- 1.27.5 Competing teams will not be permitted to appeal the scoring or decisions of the Simulation Judges, Simulation Lead Judges or Chief Judge.
- 1.27.6 The Chief Judge and Simulation Lead Judges shall be the only people in contact with the Scorekeepers.

## 1.28 Debriefing/Information Sessions

- 1.28.1 Competing teams and technicians will be provided with an opportunity for a debriefing information session on the day following completion of the competition awards ceremony.
- 1.28.2 The purpose of the debriefing information session is to provide feedback to all competing teams.
- 1.28.3 At the debriefing information session, competing teams will be provided with the following:
  - a) A scoresheet summarizing the scoring of all competing teams in all tasks
  - b) A copy of their own scoresheets including Simulation Judge written comments and Scribe notes
  - **c)** An opportunity to discuss their actions in the context of the intended competition task requirements.









## 1.29 Competition Task Specific Rules and Guidelines

#### 1.30 General

#### 1.30.1 Format Notes

- All emergency simulations will use live infrastructure including compressed air, water, ventilation, radio communication and ground support.
- All people encountered in underground workings are to be treated as part of the emergency scenario unless visually identified as a Judge
- Order of Competing Teams: Will be drawn by lottery prior to the date of the competition (date to be
  determined). Teams travelling from the same jurisdiction or country will be drawn together and
  complete each task following one another to prevent any potential for information sharing.
- The Chief Judge and Simulation Lead Judge with the assistance of a committee will develop and setup the simulation
- Once developed, the simulation will be sent for an external (Non-Canadian 3rd Party) technical expert review to ensure procedures are realistic
- Where possible any simulations underground that are present will be simulated by an actual means, such as smoke, gas readings, heat etc. When this is not possible, these will be indicated by a visual or symbolic means.
- Simulation victims will be made-up using casualty simulation visual effects to show any injuries

## 1.30.2 Illness/Injury

- Any Mine Rescue Team member (Competitor) that experiences unexpected illness or injury of any form
  during the competition scenario must immediately notify the nearest Simulation Judge who will then
  inform the Lead Simulation Judge.
- Simulation or assignment task "measured time" will be paused during the evaluation of any injuries or illnesses in fairness to the competing team.
- The Simulation Lead Judge will determine whether it is safe for the team member (competitor) to continue with the task, and therefore will also determine whether the Mine Rescue Team may proceed with the remainder of the task. It is the goal of both the IMRC Judges and competing teams to help every team achieve the goal of completing each task, however this will not be done at the expense of health or safety.

## 1.30.3 Equipment Orientation

• Location:

## Lo-Ellen Park Secondary School, Gymnasium 275 Loachs Rd, Sudbury, ON P3E 2P8

- All teams will be allocated a 2-hour Equipment Orientation Session on either Sunday August 21<sup>st</sup> or Monday August 22<sup>nd</sup>
- All teams requiring an English translator must bring their Technical Mining Translator to the equipment orientation
- Where possible, teams will be grouped with other teams speaking the same native language to help utilize translators more effectively.









- Orientation sessions will demonstrate all equipment that may be used during the competition. Some
  equipment demonstrated may not be used, it is the responsibility of teams during each emergency to
  determine what is required.
- Demonstrations will include:
  - o Inspection of equipment
  - Hazards of operating equipment
  - o Proper operating procedure
  - o Proper shutdown procedure
  - o Competitors (Mine Rescue Team) hands-on time
  - Questions

## 2.0 UNDERGROUND MINE RESCUE SCENARIO/SIMULATION

#### 2.1.1 Format

General

- The Underground Mine Rescue Scenario is mandatory for all teams participating in the 2016 IMRC Overall Team Competition.
- Task will be carried out in an inactive underground hard rock (base metal) mine
- Location:

## Vale Mine 114 Orebody

(Coordinates: 46.489239, -81.066171 or 46°29'21.3"N 81°03'58.2"W)

- Mine Maps/Plans will be provided (electronic copies) to teams for reference no later than 1 month prior to the competition.
- Underground photos/video will be provided for simple visual familiarization purposes no later than 1 month prior to the competition.
- Site Surface Photos:



































#### Field Setup

- In the workings of the underground mine (simulation field) it is important for teams to prepare for a
  very different experience than previous International Mine Rescue Competitions. Placards and
  judges will <u>NOT</u> be used to convey information about the condition of any of the below where
  possible. It is the intention of IMRC 2016 to allow teams to interact with the mine environment as
  they would in an underground emergency:
  - Casualties/Victims: Any information pertaining to these individuals must be obtained either through inquiry by the Incident Commander (Briefing Officer) prior to or during the emergency, or through active first aid engagement by the Mine Rescue Team. On both live casualties/victims (actors) and simulated casualties/victims (manikins/dummies) injuries will be displayed visually by makeup/moulage, or through verbal or physical communication.
  - Machines, objects and their state: Equipment and objects are to be interpreted as found. For example, if the scenario calls for the Mine Rescue Team to come upon a piece of running mobile equipment, the equipment will actually be present and running in the mine. In this example, Mine Rescue Teams are to approach such equipment with caution, turn off or remove power to the unit and remove any other hazards before passing or working around the equipment.









- Conditions in headings and the state of ground (rock) support: All travelways used during the competition will adhere to Ontario legislation, best practice and Vale standards with respect to ground (rock) support, and teams will be physically prevented from entering unsupported or unstable areas.
- O Physical hazards: Common hazards such as debris, flooded areas, waste rock, garbage or confined workings will appear in the mine where required. Teams are to interpret whether these areas can be safely navigated, whether work is required to remediate the area for safe work, or whether the hazard is unsafe to pass. For example, a depression in the mine drift resulting in a 1ft deep pool of water can be safely navigated on foot, however a sump area containing 15 ft of water would be deemed impassable unless a means to evacuate the water was present.
- Gas concentrations and/or smoke: Please note, gas concentrations will not be given to Mine Rescue Teams by Judges or via placards. Rather, artificial gas readings will be livetransmitted to gas monitoring devices carried by Mine Rescue Teams. It is the responsibility of the Mine Rescue Team to check the device for gas concentrations where necessary and react appropriately to any alarms that occur.
- Where it is not possible or fair to expect teams to interpret the environment without assistance,
   Mine Rescue Teams will be instructed during Equipment Orientation to look for large symbols or signs in the mine to indicate a specific condition.

#### Fresh Air Base

- Will be situated in an assured supply of fresh air near the place of emergency. May be located on either surface or underground depending on the nature and location of the emergency.
- At the Fresh Air Base there will be 1 member of the team, Incident Commander (Briefing Officer), who will perform the following duties:
  - o Interacting with specialists and leadership of the mine (Control Group)
  - o Communicating with the Mine Rescue Team;
  - Annotating a map of the emergency area including all Mine Rescue Team findings;
  - o Keeping a log-book of emergency operation;
  - Analyzing conditions in the place of emergency in order to prevent complications and ensure safety of team members;
  - Interacting with reserve teams (if necessary);
- Incident Commander (Briefing Officer) at the Fresh Air Base will not have visual contact with the Mine Rescue Team on the field.
- In the case of a performing Mine Rescue Team returning to the Fresh Air Base, the Incident Commander (Briefing Officer) may either assist the Mine Rescue Team or stay at their communication station. When the team leaves the Fresh Air base the Incident Commander (Briefing Officer) must return to their communication station.
- Incident Commanders (Briefing Officers) stationed at the Fresh Air Base do not need to be equipped with their own respirators.
- The Incident Commander (Briefing Officer) may <u>NOT</u> substitute with a Mine Rescue Team member
  once the team has begun the assignment. Accommodations may be made in the event of injury or
  illness as previously specified, though this is not guaranteed and remains at the discretion of the
  Chief Judge.









#### 2.1.2 Equipment

#### General

- Underground rescue teams will be supplied with identical rescue equipment
- Field test and procedures will be provided in advance
- Minimum Equipment Provided by organizers:
  - Self-contained closed circuit breathing apparatus (Drager BG4). Please see section 6.2.5, teams are not required to be proficient in the use of the BG4. If teams have concerns regarding the breathing apparatus, they should contact IMRC 2016 organizers as soon as possible.
  - Electronic Gas monitoring system (Industrial Scientific MX6, Drager x-am 5000, or alternate).
  - o Fully equipped First Aid Kit (Medical bag), rescue basket and spine board
  - o Team member reserve (backup) breathing apparatus
  - Casualty (victim/injured person) rescue breathing apparatus (Portable Resuscitator).
     CAREvent DRA or other.
  - Captain's notebook and/or clipboard including mine maps/plans
  - o Communication devices (eg. Wireless radio)
  - o Firefighting equipment (eg. extinguishers, hose & nozzle, AFFF, etc.)
  - O Cap lamps (miner's lamp). Please note, all hard hats should be capable of attaching such a lamp as specified in 4.3.3
- Minimum Equipment required by Teams
  - Personal protective equipment outlined in section 4.3 of the "Rules Governing IMRC 2016"
     is the responsibility of each team member
  - Team linking device for low-visibility
- Additional/Supplementary Rescue Equipment
  - The Fresh Air Base may be furnished with supplementary rescue equipment (pneumatic lifting bags, hydraulic and pneumatic jacks, scissor expander, rescue rope, pyrometer, thermal imaging (IR) camera, pickaxe, axe, hand saw, etc.) as well as a standby breathing apparatus that can be substituted if one of breathing apparatuses operated by the team is failed
  - The requirement for use of this supplementary equipment will be dictated by the scenario and decision of the Mine Rescue Team. Any equipment likely to be required will be presented to teams during the Equipment Orientation meeting to provide an equal understanding of when the equipment would be required.

#### Failures

When a breathing apparatus operated by a Mine Rescue Team fails for reasons out of the team control (unrelated to misuse or incorrect operation), the time count stops and the defective breathing apparatus is substituted with an functioning unit.

## 2.1.3 Technical Standards

General

No applicable technical standards are required to be studied at this time.









#### 2.1.4 Team Procedures, Roles, Responsibilities

#### General

- Each participating team shall be made up of five rescuers who will be wearing breathing apparatus
  underground, as well as one Incident Commander (Briefing Officer) who will be stationed on
  surface at the Fresh Air Base.
- The team members participating must be registered before leaving isolation
- Teams must explore underground workings without the assistance of any Judges.
- The scope of tasks that must be completed during the simulation include:
  - Team preparation and donning of the breathing apparatuses
  - o Team preparation of standard and auxiliary equipment to be taken underground
  - Establish the teams assignment, which may include but are not limited to the four main priorities of mine rescue and recovery work, both fire and non-fire:

#### Priorities during an Emergency

- 1. Ensure the safety of all Mine Rescue Team members at all times in all situations
- 2. Ensure the safety and safe evacuation of known Casualties (victim/injured persons)
- 3. Fight and eliminate all known fire and combustion related hazards in the underground mine
- 4. Examine the underground mine for concentrations of gas contaminants that prevent the safe operation of the mine and restore proper ventilation when possible.

## Casualties (Victims/Injured Persons)

- Location found must be noted on Captain's map as well as Incident Commander (Briefing Officer)
   map
- All casualties (victim/injured persons) not located in permanent refuge chambers safe from the emergency must be evacuated/transported to the surface Fresh Air Base
- Casualties/victims/injured persons found in contaminated atmospheres must be immediately protected with a rescue breathing apparatus if available for transportation. If no rescue breathing apparatus or self-rescuer apparatus is available, thought must be given to the nearest source of fresh air to temporarily station the individual.

## Mine Maps/Plans

- Two annotated Mine Maps/Plans are to be created during the simulation, one by the Mine Rescue Team and the other by the Incident Commander (Briefing Officer)
- Only information related to the emergency must be noted on the mine maps/plans. The following information must be marked on the map or specified on the Captain's notes
  - o Location of gas and temperature measurements
  - Location of missing persons (victims/casualties)
  - Location of hazards









- Mine Rescue Teams do not need to mark on maps/plans the location of stops to check reserves of
  oxygen and physical condition of rescuers, however the time that these checks occurred must be
  noted on either the map or Captain's notes
- Any infrastructure, including but not limited to compressed air, water, radio, ground support and ventilation that is functioning normally does not need to be specially noted on mine maps/plans
- Any infrastructure, including but not limited to compressed air, water, radio, ground support and ventilation that has been altered, disrupted or destroyed due to the emergency must be noted on the mine maps/plans
- The scenario will be limited to working on the main travel way levels but it may include boreholes, shafts and raises that could influence the ventilation system changes.
- On completing the task, the Mine Rescue Team Captain and Incident Commander (Briefing Officer)
  will be provided time for a short discussion to finalize their mine plans/maps prior to presentation
  to the Judges. Both maps will be compared and evaluated to their similarity and then scored.

#### Hazards

- Any hazard to the safety of the Mine Rescue Team that is encountered in the underground mine
  must be eliminated and reported to the Incident Commander (Briefing Officer) prior to proceeding
  past the hazard. Preventing exposure of the Mine Rescue Team to a life threatening hazard takes
  first priority over any other tasks. Hazards include, but are not limited to:
  - Unsupported ground/rock
  - Explosive concentrations of gas
  - o Live fire
  - Electrical hazard
  - o Flooding
  - o Unsafe/Unsecured equipment
  - o Operating machinery
- If at any time the Simulation Lead Judge feels that a team members safety may be compromised the action will be stopped and re-direct (penalty) points will apply

## Fires

- When a mine rescue team encounters a <u>non-combatable</u> fire it should seal the fire without delay
  and regulate ventilation regime so that to restrict the air flow to the fire and prevent it from
  further advance.
- Fire-fighting rescue actions are carried out with the aim to salvage endangered persons, mitigation of the fire expansion, extinguishing of the fire with use of active or passive measures.
- Active putting out of fires consists in its direct extinguishing e.g. by flooding with water or
  hydraulic filling, use of extinguishing agents (foams, powders), etc. Passive extinguishing consists in
  sealing of the region where the fire has occurred by erection of sealing walls (dams) and, if
  possible, supplying of inert gases to the encapsulated area.
- Fire-fighting rescue actions should comprise actions aimed at active extinguishing of fires while keeping the rescuers on the fresh air side when possible
- Active extinguishing of fires is not allowed under the following conditions:
  - When an explosive concentration of gas is present









- When the atmosphere is too hot to proceed
- When excessively high temperature prevents from application of active methods for extinguishing of the fire in the areas with no methane hazard the rescue team should restrict inflow of air to the fire zone by erection of barricades (dams).
- For zones with the methane hazard where active extinguishing of the fire proves infeasible the
  rescue team should embark on sealing of the fire zone with use of isolating barricades (dams) of
  explosion-proof design.
- Rescuers are prohibited to enter fire zones where the temperature exceeds 60°C.

## Incident Commander (Briefing Officer)

- Prior to (and during) the emergency, an unseen group of mine administrators ("Control Group") will have ultimate authority over the site and emergency response plan. This group has given responsibility for all Mine Rescue Team activity planning to the Incident Commander (Briefing Officer), however at any time they may direct the Incident Commander (Briefing Officer) to change his/her designated plan to align with the overall site emergency response plan. In this way, the Incident Commander (Briefing Officer) reports directly to this group and must obey their instructions when presented, however he/she has the freedom to proceed as they see fit in all other circumstances. During the competition, instructions from this group will be presented to the Incident Commander (Briefing Officer) by a Judge or via phone/radio communications.
- The Incident Commander (Briefing Officer) Simulation Judges will take the Incident Commander (Briefing Officer) into a separate room during the time the pre-use equipment testing by the respective team is being performed. Mine plans and a copy of the emergency narrative (record of events that have taken place up to that point) will be made available to the Incident Commander (Briefing Officer). The Incident Commander (Briefing Officer) may ask any question of the Judge, and any reasonable question will be answered, but a sense of urgency must prevail.
- Care must be taken that the Judge remains available for any questions for exactly the same length
  of time in each case. Sufficient time will then be allowed for the Incident Commander (Briefing
  Officer) to study the mine plans and the narrative.
- The Incident Commander (Briefing Officer) will be responsible for detailing the proposed assignment for the Mine Rescue Team being deployed. This proposed assignment will be evaluated prior to notifying the Mine Rescue Team.
- The Incident Commander (Briefing Officer) Simulation Judges will then present detailed (complete or partial) written instructions to the Incident Commander (Briefing Officer), outlining the mandatory team assignment. This is done to ensure that each Mine Rescue Team begins the task with the same information so that they may be equally judged from that point forward. The Incident Commander (Briefing Officer) and Judges will discuss these instructions to be sure the Incident Commander (Briefing Officer) understands them and the reasoning behind them. Any differences between the Incident Commander (Briefing Officer) plan and mandatory task plan will result in a penalty being applied to the overall scoring.
- The Technical Mining Translator that attends the competition with each team will be stationed
  with the Incident Commander (Briefing Officer) at all times. The Translator will be responsible for
  translating all discussion between the Incident Commander (Briefing Officer), Judges and radio
  communication with the Mine Rescue Team.









#### Ventilation

- Ventilation changes are considered to be any combination of stopping, starting or redirecting the airflow/current within the mine
- Re-direction of the air current should be made by means of erection temporary stoppings, breaking existing ventilation installations, regulating air flow.
- Before changes are made to ventilation, Mine Rescue Teams must receive permission from the Control Group (mine management authority) through a request from the Incident Commander (Briefing Officer).
- It is permitted to change ventilation when all accessible areas have been explored;
- To direct airflow, containing irrespirable gases or explosive air-gas mixture through unexplored areas is strictly prohibited;
- When passing ventilation constructions a team should maintain the existing regime of ventilation;
- Regulating airflow to control a fire is considered as a ventilation change.;
- When breaking a brattice (curtain) irrespirable or explosive gas mixture is not to penetrate beyond barricade;
- While controlling the ventilation system a team should exclude the possibility of penetration air current, containing explosive gas mixture to areas where may exist sites of ignition, sparking or smoldering;
- It is permitted to ventilate unexplored areas provided permission is given to the Incident Commander (Briefing Officer) by the Control Group (mine administration officials)

#### Tasks

- Teams must don their primary breathing apparatus and be under respiratory protection prior to entering any area of known respiratory contamination
- Upon entering an area of known respiratory contamination, a survey of gas concentrations must be taken for the following contaminants:
  - o Carbon Monoxide CO
  - o Methane CH₄
  - o Oxygen − O<sub>2</sub>
- It should be noted, the hard rock mine in which the Underground Simulation is being conducted does not have a history of methane contamination.
- While re-entering the zone where gas testing has already been performed there is no need to perform testing again, provided that ventilation conditions were not changed.
- Upon first entering an area of known respiratory contamination, an apparatus check is required.
- Additional location for air quality (gas concentration) checks include:
  - o At the shaft (or portal/ramp) entrance
  - After crossing a ventilation dam/barricade (in front of and behind the dam) if conditions appear to have changed
  - Locations where victim/casualties are found
  - o First appearance of smoke
  - o Location of fire and after having it put out
  - o Locations where the team carries out tasks
  - Areas of confined space or suspected oxygen deficiency









 Where possible during the Underground Simulation heat will be represented by an actual heated environment. If, during the Underground Simulation, the creation of an actual heated environment is not possible, the simulated conditions of "heat" will be indicated by displaying a symbol such as the following:



- Upon entering an area of elevated ambient temperatures, a survey of climactic conditions must be taken via the following readings:
  - o Dry Bulb Temperature
  - Wet Bulb Temperature
- Temperature readings are used determine the maximum allowable working time for Mine Rescue Teams according to the following chart which will be provided to each team:

Mine Rescue Heat Exposure Standard															
	38								19	19	19	19			
w	37								20	19	19	19	19	19	
	36							22	22	21	20	20	19	19	19
е	35							24	23	22	22	22	21	20	20
t	34						27	26	25	24	23	23	22	22	22
	33						29	28	27	27	26	25	24	23	23
В	32					33	32	31	30	29	28	27	26	26	25
u	31					38	36	35	33	32	31	30	29	28	27
u	30				46	44	42	40	38	36	34	33	32	30	30
ı	29				53	50	48	45	43	41	39	38	36	34	32
b [	28			63	60	57	55	52	50	47	45	43	41	39	37
	27			72	69	66	63	60	57	54	52	49	47	45	43
T	26		87	83	79	75	72	68	65	62	59	56	54	51	49
e	25		99	95	90	86	82	78	75	71	68	65	62	59	56
	24	119	114	108	103	99	94	90	85	81	78	74	71	67	64
m	23	*	*	*	118	113	108	103	98	93	89	85	81	77	73
р.		24	26	28	30	32	34	36	38	40	42	44	46	48	50
	Dry Bulb Temp.														

Cross-referencing the Wet Bulb and Dry Bulb temperatures indicates the maximum time exposure in minutes. Exposure limits include time for entry, exit and rest breaks. Exposure limits must not be exceeded.

- Where possible and appropriate for ventilation conditions, smoke will be represented by an actual smoke or low-visibility environment. Smoke or low-visibility environments will be created by mechanically generated smoke to ensure consistent quality.
- When Mine Rescue Teams are travelling in areas of low or zero visibility, teams must link or connect all members to ensure the safety of all members at all times. Linking or connecting in low visibility







must notify all other team members if any team member becomes separated from the team or experiences duress. Teams may link or connect in low visibility in the following ways:

- While carrying the rescue basket, all members are considered linked or connected. If the Captain does not carry the rescue basket, the Captain must be fastened to the rescue basket by some other means.
- Through the use of a linking rope, lanyard, cord, elastic or other device by which all members are connected to one-another. Teams may use the rope, lanyard, cord, elastic or other device that is utilized in their home jurisdiction.
- Teams are not considered linked or connected while holding a rescue basket that is being transported by a rolling cart or vehicle.
- o Teams may disconnect from one another when performing a task (eg. building a ventilation barricade) at a fixed location but must be linked when advancing or returning as a team
- o The act of active firefighting is considered a task as defined above

#### **Team Safety**

- Every 20 minutes the team should stop and the Captain must check the reserve of oxygen in breathing apparatuses of each rescuer, including his/her own, as well as their physical condition.
- If the oxygen reserve in a breathing apparatus of any team member drops below 25% of the initial value, the Captain must report the situation to the Incident Commander (Briefing Officer) and determine the safest plan of action for returning to the Fresh Air Base
- Captain must assist team members in the check of their face mask seal initially upon donning the breathing apparatus and must re-check after travel through confined spaces or ladderways.
- Rescuers must demonstrate a sense of urgency at all times, but are not permitted to run while they travel through the mine simulation

## Captain

- When arriving at an assigned worksite or destination, the Captain must provide feedback to the Incident Commander (Briefing Officer) regarding findings and measurement results.
- Roof of explored workings should be visually checked in the following cases: at locations of fires
  prior to commencements of the fire extinguishing and after having it put out, at each crossing of the
  fire location, at rock falls, prior to erection of a dam (barricade), at the face end and prior to erection
  of props to strengthen roof support of the working. Locations of rock or ground issues must be
  marked on the maps. As the simulation is being conducted in an underground hard-rock base metal
  mine, where active or passive ground support has been installed it shall be considered competent by
  visual inspection.
- Captain should continuously supervise activities of all members of his team during the rescue jobs.
   Captain may participate in jobs assigned to the rescue team unless it restricts his abilities to look after safety of all the team members.
- Mine Rescue Team members are not allowed to go away from the workplace of the team or to carry
  out any jobs without a previous consent of the team Captain.
- When transportation of injured persons via already explored roads proves infeasible they may be evacuated through unexplored workings.









- Prior to crossing a low passage all team members shall take breathing apparatuses off their backs.
   While covering the passage all team members <u>do not</u> need to be connected together by means of a rescue rope. When an injured person on a stretcher is hauled through a low passage it is essential to take extreme care of his safety.
- Rescuers are not allowed to go away from the workplace of the rescue team or to carry out any jobs without a previous consent of the team Captain
- Upon completion of the task and arriving back to the rescue fresh air base the team Captain reports to the Incident Commander (Briefing Officer) that the team is back and outlines how the task was completed with own comments and remarks.
- Only the team Captain may give the order to remove facemasks and request the team remove oxygen once back at the Fresh Air Base

#### Communication

- The rescue team on its way to the location of assigned rescue jobs, during execution of such jobs and on their way back must attempt to remain in in continuous voice communication with the Incident Commander (Briefing Officer). In the event that communication capability is lost while advancing or retreating from the mine, the Mine Rescue Team must return to the last location of functioning voice communication to notify the Incident Commander (Briefing Officer). Mine Rescue Teams may proceed into areas containing no voice communication capability provided the Incident Commander (Briefing Officer) is notified and a strict time limit for return to the communication point is established.
- When voice communication is interrupted because of a known issue, Mine Rescue Teams should attempt to repair the system or seek permission to continue without voice communication.

## 2.1.5 Evaluation Criteria

## Equipment

- Teams will <u>not</u> be evaluated on the pre-use testing (field test) of the primary Mine Rescue Team breathing apparatus (Draeger BG4). This is to ensure fairness for teams that do not use the BG4 within their home jurisdiction. All BG4 breathing apparatus provided to the team may be considered ready-to-wear, at which point teams may don the apparatus as instructed during orientation. In the interest of fairness, all teams are given the opportunity to begin under oxygen on a level playing field, after which time how they perform in the emergency scenario will determine how they are scored.
- Teams will <u>not</u> be evaluated on the post-use service (cleaning & function test) of the primary Mine
  Rescue breathing apparatus (Draeger BG4). This is to ensure fairness for teams that do not use the
  BG4 within their home jurisdiction. All cleaning and service of Draeger BG4 breathing apparatus will
  be done by Draeger personnel.

## Tasks

Competitors (Mine Rescue Team Members) are encouraged to carry out tasks as safely, efficiently
and quickly as they normally would during an actual mine emergency in their home jurisdiction.
 However, because all tasks are being evaluated for completion or quality, competitors must ensure
their activities can be viewed clearly by either an in-person Judge or monitoring camera, or that their









- work can be inspected once the team has left the task area. As often as possible, verbal communication of tasks between Competitors and Judges will not be required or encouraged to remove any disadvantage to non-English speaking teams.
- Simulation Judges will follow the team's progress on the floor and will be responsible for judging proper team procedures.
- Judges will remain in fresh air where possible and if not will be provided with an assured supply of fresh air. Use of thermal imaging cameras for evaluation can be used where conditions allow.
- The underground simulation will be laid out in such a way that teams will be able to navigate through the scenario with little to no assistance from the Judges.
- Unlike previous International Mines Rescue Competitions, where possible the "completion" or tasks will be determined by the Mine Rescue Team rather than a Judge. Teams must balance the efficient and timely completion of a task with the quality required to achieve the goal, as they will be evaluated on both aspects. For example, if an object must be lifted off of a pinned casualty/victim, the Mine Rescue Team may choose to lift only the minimum height required to scrape the person from underneath without supporting or stabilizing the load. This may appear to save time, however the Mine Rescue Team will be evaluated as having done poorly with respect to safety, casualty care and task planning.

#### **Underground Time Limits**

- The underground simulation will have a time limit determined by the Chief Judge and Lead Underground Simulation Judge
- Teams will be advised of the time limit prior to simulation
- Teams will be advised to get out of oxygen once the time limit has expired identifying the end of the problem
- Once the team is directed to get out of oxygen, the team will not qualify for any potential remaining merit points available in the simulation
- The pre-determined time limit will be established to allow teams more than sufficient time to complete the entire problem or task, should they fully understand their objectives and work towards achieving them. It is important to note, the time limit is not intended to be utilized as in previous International Competitions to stop teams from completing the task. The time limit is reserved as a last resort by the Simulation Lead Judge to remove a competing team from the field where they have clearly demonstrated a lack of progress towards the task specific goals. This must be done to ensure the continuation of the competition for remaining teams.

#### Scoring

- The Underground Simulation will be judged using a merit system with "0" being assigned to a task that is not done or skipped. Merits will range between 0-25 depending on the difficulty of the task.
- Scoring of each task will be done by more than one Simulation Judge independently, each from differing Mine Rescue jurisdictions. Following the team moving to the next task, Simulation Judges will create a consensus score based on their observations.
- Where no specific mandatory procedure or guideline for a task is provided in advance of the event,
   teams are encouraged to use the most safe and effective procedure known to them to complete the









challenge. Simulation Judges will reward or penalize teams based on the relative safety and effectiveness of each task.

See additional scoring rules in section 5.4 of "Rules Governing IMRC2016"

#### Completion

 The problem will be considered completed when the Control Group (Judges interacting with Incident Commander) instruct the Incident Commander that the task has been completed. This may occur at any stage of the simulated emergency, regardless of overall completion, as dictated by the conditions and timeline.

#### 3.0 UNDERGROUND FIREFIGHTING SCENARIO

#### 3.1.1 **Format**

#### General

- The Underground Firefighting Scenario is mandatory for all teams participating in the 2016 IMRC Overall Team Competition.
- Task will be carried out in an inactive underground hard rock (base metal) mine
- The Underground Firefighting Scenario will involve the extinguishing of a live fire in an enclosed underground mine environment
- Location:

Underground Research Site
155 Magill Street, Lively, ON, Canada
(Coordinates: 46.432020, -81.124270 or 46°25'55.3"N 81°07'27.4"W)

 Mine plans/maps will be provided to competing teams no later than 1 month prior to the competition date.

Photos:









































































#### 3.1.2 Equipment

#### General

- Underground rescue teams will be supplied with identical rescue equipment
- Any pre-use test checklists (field tests) and procedures will be provided no later than 1 month in advance of the competition
- Minimum Equipment Required:
  - Self-contained closed circuit breathing apparatus (e.g. Dräger BG4 provided)
  - Electronic Gas monitoring system (Industrial Scientific MX6, Dräger x-am 5000, or alternate). Please note, gas concentrations will not be given to teams by judges or via placards. Rather, artificial gas readings will be live-transmitted to gas monitoring devices carried by Mine Rescue Teams. It is the responsibility of the Mine Rescue Team to check the device for gas concentrations where necessary.
  - Temperature Sensor (Kestrel 3500 Weather Meter)
  - o Rescue basket
  - o Team member reserve (backup) breathing apparatus (MSA/Auer SSR 90 M)
  - Captain's notebook, clipboard. Please note, Mine Rescue Team Captains are permitted to bring the data/note recording documents used in their home jurisdiction. Notes not recorded in English must be translated by the team Technical Translator following the completion of the task.
  - Communication devices (eg. Wireless radio)
  - Personal protective equipment as outlined in section 4.3 of the "Rules Governing IMRC 2016"

#### Firefighting Equipment

- Mine Rescue Teams will be supplied with identical firefighting equipment.
- o Firefighting equipment will be available for viewing prior to the competition.









- Extinguishing Agents: Use of mine water/in-line foam solutions/self-contained compressed air foam units/fire extinguishers where applicable
- o Fire hoses will be no longer than 50' each
- Underground mine service water headers will be provided and identified for use where applicable
- Thermal imaging camera will be provided and must be used to determine temperature of fire area
- Low Expansion Foam Fire Suppression
  - Elkhart Brass Model 241 Foam Eductor + Akron Brass Foam Tube Model 766
  - Handbook of Training in Mine Rescue and Recovery Operations, 2014, Ontario Mine Rescue
     P.218
  - http://www.akronbrass.com/95-gpm-brass-in-line-eductor
  - o http://www.elkhartbrass.com/products/foam-eductors/portable/multimedia
- High Expansion Foam Fire Suppression
  - Rockwell Jet-X Water-Powered High Expansion Foam Generator
  - Handbook of Training in Mine Rescue and Recovery Operations, 2014, Ontario Mine Rescue
     P.225
  - o Chemguard Diesel-Powered High Expansion Foam Generator
  - Handbook of Training in Mine Rescue and Recovery Operations, 2014, Ontario Mine Rescue
     P.220
- Firefighting Nozzle Fire Suppression
  - http://www.elkhartbrass.com/products/nozzles/select-o-flow/multimedia
  - o http://www.akronbrass.com/1-1-2-turbojetr-nozzle-with-pistol-grip/
  - Akron Brass 1-1/2" NPSH\* Turbojet Nozzle Model 1715
  - Handbook of Training in Mine Rescue and Recovery Operations, 2014, Ontario Mine Rescue
     P.215
- Firefighting Hose Fire Suppression
  - 50 foot or 100 foot with 1-1/2" NPSH\* Couplers Brass/Pyrolite
  - \* NPSH National Pipe Straight Hose (American Standard Straight Pipe for Hose Couplings), washer seal
- Portable Extinguisher Fire Suppression
  - https://www.ansul.com/en/us/pages/ProductDetail.aspx?productdetail=SENTRY+Industrial
     +Dry+Chemical+Extinguishers
  - https://www.ansul.com/en/us/pages/ProductDetail.aspx?productdetail=SENTRY+Carbon+Dioxide+Extinguishers
  - https://www.ansul.com/en/us/pages/ProductDetail.aspx?productdetail=SENTRY+Water+Extinguishers
  - https://www.ansul.com/en/us/pages/ProductDetail.aspx?productdetail=SENTRY+High-Flow+Stored-Pressure+Fire+Extinguishers
  - https://www.ansul.com/en/us/pages/ProductDetail.aspx?productdetail=SENTRY+Stored+Pressure+Dry+Chemical+Extinguisher+
  - https://www.ansul.com/en/us/pages/ProductDetail.aspx?productdetail=RED+LINE+Cartrid ge-Operated+Hand+Portables%e2%80%94Dry+Chemical









- Fire extinguisher classification and use based on NFPA 10: Standard for Portable Fire
   Extinguishers, National Fire Protection Association Codes and Standards
- Handbook of Training in Mine Rescue and Recovery Operations, 2014, Ontario Mine Rescue
   Pg. 210
- Thermal Imaging Camera
  - http://ca.msasafety.com/Thermal-Imaging/Thermal-Imaging Cameras/EVOLUTION%26reg%3B-5200-Thermal-Imaging-Camera/p/000340000300001251
  - http://www.draeger.com/sites/enus\_ca/Pages/Fire-Services/Draeger-UCF-7000-NFPA-Certified.aspx

#### 3.1.3 Technical Standards

#### General

- Any scenario and associated evaluation will derive core principles from the following reference material:
  - Essentials of Fire Fighting, 6<sup>th</sup> Edition
    - Chapter 5 Fire Behavior
    - Chapter 7 Portable Fire Extinguishers
    - Chapter 16 Fire Stream
    - Chapter 17 Fire Control
- Mine Rescue Team members (competitors) will not be directly exposed to the proximity hazards of a
  direct fire attack. The minimum safe distance from the live fire scenarios will be established by preinstalled barriers or signage. As such, Mine Rescue Team members (competitors) will not require
  personal protective equipment to the standard of structural firefighting and proximity fire fighting.
  NFPA 1851 protective ensembles are not required.
- The minimum standard for personal protective coveralls to be worn by Mine Rescue Team members (competitors) is NFPA 2113: Standard On Selection, Care, Use, And Maintenance Of Flame-Resistant Garments For Protection Of Industrial Personnel Against Short-Duration Thermal Exposures

#### 3.1.4 Team Procedures

#### General

- Each participating team shall be made up of **six rescuers** who will be wearing breathing apparatus underground, as well as one Incident Commander (Briefing Officer) who will be stationed on surface at the Fresh Air Base.
- The team members participating must be registered before leaving isolation
- Mine Rescue Teams will not be allowed to possess reference material after they leave the isolation area
- Teams must explore underground workings without the assistance of any Judges.
- The scope of tasks that must be completed during the simulation include:
  - Team preparation and donning of the breathing apparatuses
  - Team preparation of auxiliary, rescue and firefighting equipment to be taken underground









 Establish the teams assignment, which may include but are not limited to the four main priorities of mine rescue and recovery work, both fire and non-fire:

**Priorities During an Emergency** 

- 1. Ensure the safety of all Mine Rescue Team members at all times in all situations
- Ensure the safety and safe evacuation of known Casualties (victim/injured persons)
- 3. Fight and eliminate all known fire and combustion related hazards in the underground mine
- 4. Examine the underground mine for concentrations of gas contaminants that prevent the safe operation of the mine and restore proper ventilation when possible.

#### Captain

During the simulation the team Captain's role is:

- Supervise and direct while maintaining care and control of all Mine Rescue Team members at all times
- Assess each situation, develop a plan of action independently, or where necessary in consultation with the Incident Commander (Briefing Officer)
- Identify and determine the priorities for Mine Rescue Team members
- Provide direction to other team members

#### **Location Reporting**

 Mine Rescue Teams must, at all times, be assigned a target destination/task and time limit by the Incident Commander (Briefing Officer). The next report to the Incident Commander (Briefing Officer) must come from the assigned destination or following completion of the assigned task.

Casualties (Victims/Injured Persons)

• There will be no requirement to perform First Aid or casualty care during the Underground Firefighting Scenario

#### Mine Maps/Plans

- Only information related to the emergency must be noted on the mine maps/plans.
- Any infrastructure, including but not limited to compressed air, water, radio, ground support and ventilation that is functioning normally does not need to be noted on mine maps/plans
- Any infrastructure, including but not limited to compressed air, water, radio, ground support and ventilation that has been damaged, altered, disrupted or destroyed due to the emergency must be noted on the mine maps/plans

#### Hazards

Any hazard to the safety of the Mine Rescue Team that is encountered in the underground mine
must be eliminated and reported to the Incident Commander (Briefing Officer) prior to proceeding









past the hazard. Preventing exposure of the Mine Rescue Team to a life threatening hazard takes first priority over any other tasks. Hazards include, but are not limited to:

- Unsupported ground/rock
- Explosive concentrations of gas
- Live fire
- Electrical hazard
- o Flooding
- Unsafe/Unsecured equipment
- Operating machinery
- Note: Contaminated ventilation is <u>not</u> considered a life threatening hazard to those wearing an oxygen breathing apparatus
- If at any time the Simulation Lead Judge feels that a team members safety may be compromised the action will be stopped and re-direct negative (penalty) points will apply
- Proper firefighting techniques must be used when in proximity to combustion generated heat. At
  no point in time may a team expose members directly to heat without protection (wide pattern
  water fog heat barrier, physical obstacle, etc). This rule applies while advancing to fight, fighting,
  or retreating from a live fire or heating situation.
- The Chief Judge and Firefighting Simulation Lead Judge will create a no person entry zone
   (immediately around the fire) where no one will enter unless the fire has been extinguished or
   reduced to a manageable level. Allowances will be made for stirring an extinguished fire, checking
   for hot spots, etc.

#### **Underground Time Limits**

- The Firefighting simulation will have a time limit determined by the Chief Judge and Firefighting Lead Simulation Judge
- Teams will be advised of the time limit prior to simulation
- Event will be timed from the initial report of fire observation to the final extinguishment task (if multiple tasks take place).
- Teams will be advised to return to surface once the time limit has expired identifying the end of the problem
- Once the team is directed to get out of oxygen, the team will not qualify for any potential remaining points available in this simulation
- The pre-determined time limit will be established to allow teams more than sufficient time to complete the entire problem or task, should they fully understand their objectives and work towards achieving them. It is important to note, the time limit is not intended to be utilized as in previous International Competitions to stop teams from completing the task. The time limit is reserved as a last resort by the Simulation Lead Judge to remove a competing team from the field where they have clearly demonstrated a lack of progress towards the task specific goals. This must be done to ensure the continuation of the competition for remaining teams.









#### **Tasks**

- Teams must don their primary breathing apparatus and be under respiratory protection prior to entering any area of known respiratory contamination
- Upon entering an area of known respiratory contamination, a survey of gas concentrations must be taken for the following contaminants:
  - o Carbon Monoxide CO
  - Methane CH<sub>4</sub>
  - Oxygen O<sub>2</sub>
- Where possible during the Firefighting Simulation heat will be represented by an actual heated environment. If, during the Firefighting Simulation, the creation of an actual heated environment is not possible, the simulated conditions of "heat" will be indicated by displaying a symbol such as the following:



- Upon entering an area of elevated ambient temperatures, a survey of climactic conditions must be taken via the following readings:
  - o Dry Bulb Temperature
  - o Wet Bulb Temperature
- Temperature readings are used determine the maximum allowable working time for Mine Rescue Teams according to the following chart which will be provided to each team:









				M	line	Resc	ue l	leat	Ехр	osu	re Si	tand	lard		
	38								19	19	19	19			
w	37								20	19	19	19	19	19	
	36							22	22	21	20	20	19	19	19
е	35							24	23	22	22	22	21	20	20
t	34						27	26	25	24	23	23	22	22	22
	33						29	28	27	27	26	25	24	23	23
В	32					33	32	31	30	29	28	27	26	26	25
u	31					38	36	35	33	32	31	30	29	28	27
	30				46	44	42	40	38	36	34	33	32	30	30
l	29				53	50	48	45	43	41	39	38	36	34	32
b	28			63	60	57	55	52	50	47	45	43	41	39	37
	27			72	69	66	63	60	57	54	52	49	47	45	43
T	26		87	83	79	75	72	68	65	62	59	56	54	51	49
e	25		99	95	90	86	82	78	75	71	68	65	62	59	56
	24	119	114	108	103	99	94	90	85	81	78	74	71	67	64
m	23	*	*	*	118	113	108	103	98	93	89	85	81	77	73
p.		24	26	28	30	32	34	36	38	40	42	44	46	48	50
	Dry Bulb Temp.														

Cross-referencing the Wet Bulb and Dry Bulb temperatures indicates the maximum time exposure in minutes. Exposure limits include time for entry, exit and rest breaks. Exposure limits must not be exceeded.

- Where possible and appropriate for ventilation conditions, smoke will be represented by an actual smoke or low-visibility environment. Smoke or low-visibility environments will be created by mechanically generated smoke to ensure consistent quality.
- When Mine Rescue Teams are travelling in areas of low or zero visibility, teams must link or connect
  all members to ensure the safety of all members at all times. Linking or connecting in low visibility
  must notify all other team members if any team member becomes separated from the team or
  experiences duress. Teams may link or connect in low visibility in the following ways:
  - While carrying the rescue basket, all members are considered linked or connected. If the Captain does not carry the rescue basket, the Captain must be fastened to the rescue basket by some other means.
  - Through the use of a linking rope, lanyard, cord, elastic or other device by which all
    members are connected to one-another. Teams may use the rope, lanyard, cord, elastic or
    other device that is utilized in their home jurisdiction.
  - o Teams are not considered linked or connected while holding a rescue basket that is being transported by a rolling cart or vehicle.
  - o Teams may disconnect from one another when performing a task (eg. building a ventilation barricade) at a fixed location but must be linked when advancing or returning as a team
  - The act of active firefighting is considered a task as defined above

#### **Team Safety**

• Every 20 minutes the team should stop and the Captain must check the reserve of oxygen in breathing apparatuses of each rescuer, including his/her own, as well as their physical condition.









- If the oxygen reserve in a breathing apparatus of any team member drops below 25% of the initial value, the Captain must report the situation to the Incident Commander (Briefing Officer) and determine the safest plan of action for returning to the Fresh Air Base
- Captain must assist team members in the check of their face mask seal initially upon donning the breathing apparatus and must re-check after travel through confined spaces or ladderways.
- Rescuers must demonstrate a sense of urgency at all times, but are not permitted to run while they travel through the mine simulation

#### 3.1.5 Evaluation Criteria

#### General

- There will be a minimum of two Simulation Judges per competing team
- Simulation Judges will be competent in the judging of firefighting simulations
- Simulation Judges will keep accurate start and finish times on the score cards
- The Firefighting Simulation Lead Judge will ensure the firefighting simulation is reset in an identical manner for each team
- Judges will remain in fresh air where possible, or alternatively will be provided with an assured supply of fresh air or self-contained breathing apparatus. Use of thermal imaging cameras by Simulation Judges for evaluation will occur in low visibility areas.

#### Equipment

- Teams will <u>not</u> be evaluated on the pre-use testing (field test) of the primary Mine Rescue Team breathing apparatus (Draeger BG4). This is to ensure fairness for teams that do not use the BG4 within their home jurisdiction. All BG4 breathing apparatus provided to the team may be considered ready-to-wear, at which point teams may don the apparatus as instructed during orientation. In the interest of fairness, all teams are given the opportunity to begin under oxygen on a level playing field, after which time how they perform in the emergency scenario will determine how they are scored.
- Teams will <u>not</u> be evaluated on the post-use service (cleaning & function test) of the primary Mine Rescue breathing apparatus (Draeger BG4). This is to ensure fairness for teams that do not use the BG4 within their home jurisdiction. All cleaning and service of Draeger BG4 breathing apparatus will be done by Draeger personnel.

#### Tasks

- Competitors (Mine Rescue Team Members) are encouraged to carry out tasks as safely, efficiently and quickly as they normally would during an actual mine emergency in their home jurisdiction. However, because all tasks are being evaluated for completion or quality, competitors must ensure their activities can be viewed clearly by either an in-person Judge or monitoring camera, or that their work can be inspected once the team has left the task area. As often as possible, verbal communication of tasks between Competitors and Judges will not be required or encouraged to remove any disadvantage to non-English speaking teams.
- Simulation Judges will follow the team's progress on the floor and will be responsible for judging proper team procedures.









- Judges will remain in fresh air where possible and if not will be provided with an assured supply of fresh air. Use of thermal imaging cameras for evaluation can be used where conditions allow.
- The Underground Firefighting Scenario will be laid out in such a way that teams will be able to navigate through the scenario with little to no assistance from the Judges.

#### Incident Commander (Briefing Officer)

- The Incident Commander (Briefing Officer) Simulation Judges will take the Incident Commander (Briefing Officer) into a separate room during the time the pre-use equipment testing by the respective team is being performed. Mine plans and a copy of a narrative (record of events that have taken place up to that point) will be made available to the Incident Commander (Briefing Officer). The Incident Commander (Briefing Officer) may ask any question of the judge, and any reasonable question will be answered, but a sense of urgency must prevail.
- Care must be taken that the judge remains available for these questions for exactly the same length of time in each case. Sufficient time will then be allowed for the Incident Commander (Briefing Officer) to study the mine plans and the narrative.
- The Incident Commander (Briefing Officer) will be responsible for detailing the proposed assignment for the Mine Rescue Team being deployed. The proposed assignment will then be evaluated before presentation to the Mine Rescue Team.
- The Incident Commander (Briefing Officer) Simulation Judges will then present detailed (complete or partial) written instructions to the Incident Commander (Briefing Officer), outlining the mandatory team assignment. This is done to ensure that each team begins the task with the same information so that they may be equally judged from that point forward. The Incident Commander (Briefing Officer) and Judges will discuss these instructions to be sure the Incident Commander (Briefing Officer) understands them and the reasoning behind them. Any differences between the Incident Commander (Briefing Officer) plan and mandatory task plan will result in a penalty being applied to the overall scoring.
- The Technical Mining Translator that attends the competition with each team will be stationed with the Incident Commander (Briefing Officer) at all times. The Translator will be responsible for translating all discussion between the Incident Commander (Briefing Officer), Judges and radio communication.

#### Scoring

- The Underground Firefighting Scenario will be judged using a merit point system with teams receiving points for each task that is completed or partially completed
- Scoring of each task will be done by more than one Simulation Judge independently, each from differing Mine Rescue jurisdictions. Following the team moving to the next task, Simulation Judges will create a consensus score based on their observations.
- Where no specific mandatory procedure or guideline for a task is provided in advance of the event, teams are encouraged to use the most safe and effective procedure known to them to complete the challenge. Simulation Judges will reward or penalize teams based on the relative safety and effectiveness of each task.
- In the event of a scored tie in the Firefighting Simulation Task the Mine Rescue Team with the faster completion time for all combined related tasks will break a tie









See additional scoring rules in section 5.4 of "Rules Governing IMRC2016"

#### 4.0 FIRST AID SCENARIO

#### 4.1.1 Format

General

Participation in the First Aid Simulation is optional, but encouraged for all participants. As specified in 5.1.2, teams must select which of the two optional scoring events will contribute to their Overall score. They may, however, participate in the non-scoring event in the interests of learning and the potential to win the individual task category.

The 2016 International Mine Rescue First Aid Competition will be scenario based. The scenario will be a multiple patient/casualty/victim incident. It will take place on surface at a mine site. The use of self-contained breathing apparatus will not be required.

Mine Rescue first aid teams will be made up of six team members. The team members participating must be registered before leaving isolation. A team Captain must be appointed.

The Chief Judge and First Aid Simulation Lead Judge with the assistance of a committee will develop and setup the simulation. Once developed the simulation will be sent for medical review to ensure injuries, conditions and treatments are realistic

Simulation victims/casualties will be made-up using casualty simulation art to show any injuries. Mannequins will represent patients with vital signs absent. CPR will be required immediately.

The first aid simulation will be split into two parts:

- 1. Providing first aid to people with various types of injuries and
- 2. CPR with Automatic External Defibrillation and respiratory arrest requiring rescue breathing

Any of the examples listed below may be incorporated in the simulation scenario;

Casualty Management Unresponsive/Conscious, Adult Resuscitation, CPR A + AED, 2 Person CPR, Severe Bleeding, Medical Conditions, Wound Care, Burns, Eye Injuries, Chest Injuries, Multiple Casualty Management, Poisoning, Heat and Cold injuries, Rescue Carries, Bone and Joint Injuries and Head and Spinal Injuries.

#### 4.1.2 Equipment

General

- Mine Rescue first aid teams will be supplied with identical first aid supplies and equipment.
- First aid supplies and equipment will be available for viewing prior to the competition.









- Any pre-use evaluation tests (field tests) and procedures required will be provided no later than 1
  month in advance of the competition date
- Minimum Equipment Required:
  - Fully equipped First Aid Kit, rescue basket and spine board
  - o Casualty (victim/injured person) rescue breathing apparatus
  - Personal protective equipment outlined in section 4.3 of the "Rules Governing IMRC 2016"
     is the responsibility of each team member

#### 4.1.3 Technical Standards

#### General

- The reference material being used develop the scoresheets are as follows;
  - o St. John First Aid, Reference Guide
  - o St. John Ambulance, Medical First Responder
  - Heart and Stroke Foundation of Canada, 2015 Basic Life Support Provider Manual
  - All participating teams should use this reference material to prepare for the first aid competition.
- The minimum level of first aid training expected will be St. John Ambulance Standard First Aid (Mine Rescue Program) or international equivalent.

#### Transparency and Fairness

Teams that are trained by first aid providers other than St. John Ambulance will not be at a disadvantage. With the goal of transparency and fairness St. John Ambulance and Red Cross Instructors are assisting in the development of the scenario. The treatment of all injuries will be reviewed by a medical professional.

#### 4.1.4 Team Procedures, Roles, Responsibilities

#### General

Six competing team members will be expected to;

- conduct a scene assessment,
- perform primary and secondary assessments,
- provide ongoing patient care and
- transportation

Team members will be expected to perform triage;

- To determine the patient's condition and the urgency of the patient's condition
- To assign a priority to the patient's treatment and prioritize transport to an appropriate receiving facility

Team members will be expected to manage all injuries or illnesses found. "Load and Go" or equivalent methodology will not apply.









During the simulation the team captain's role is:

- Assessing the situation and developing a plan of action
- Providing direction to other team members
- Identifying and determining priorities for treatment by team members

#### 4.1.5 Evaluation Criteria

#### General

There will be a minimum of two judges per patient. Judges will be competent in the judging of first aid application. Judges will keep accurate start and finish times on the score card. Judges will interview patients and examine the treatment patients received to determine their final scores. Rough handling, incomplete or poorly done treatment will be scored.

First Aid Simulation Lead Judge will be responsible to ensure the first aid simulation is set up identically for each team

In the event of a tie, the team with the faster overall time to complete the simulation will break a tie. In the event of identical completion times, a determination will be made with respect to the quality of patient care as indicated by the volunteer victim/casualties.

#### Communication

Communication is essential when teams are assessing patients. To minimize language barriers team interpreters should be familiar with first aid terminology. Every effort will be made to evaluate a team's actions rather than spoken word.

#### **Time Limits**

The first aid simulation will have a time limit determined by the Chief Judge and First Aid Simulation Lead Judge. Teams will be advised of the time limit prior to the simulation. The clock will start when the first aid team receives a call requesting a response to a specific emergency. Teams will proceed to the scene as quickly as possible. The clock will stop when the first aid team has completed part 1 and 2 or the time limit has expired. First aid team members must stop when time is called

#### **Judges Instructions**

Scoring: 0 = not done

1 = poor attempt

2 = needs improvement

3 = excellent meets all requirements









- Every line must be scored.
- A score of 0, 1 or 2 must be explained by the scoring Judges or the Chief Judge may reinstate the points due to lack of justification.
- When a score of 3 is applied, comments are encouraged
- If a team runs out of time a score of 0 will apply to remaining actions

#### Rough Handling

- Rough handling negative (penalty) points will be deducted from the total score
- Judges can deduct 1 to 5 points per each patient
- Rough handling negative (penalty) points will have a maximum of 10 points
- Rough handling deductions must be explained by the judges

#### 5.0 HIGH ANGLE ROPE RESCUE SCENARIO

#### 5.1.1 **Format**

General

Participation in the High Angle Rope Rescue Simulation is optional, but encouraged for all participants. As specified in 5.1.2, teams must select which of the two optional scoring events will contribute to their Overall score. They may, however, participate in the non-scoring event in the interests of learning and the potential to win the individual task category.

#### 5.1.2 Equipment

General

Teams will be given an opportunity to become familiar with rope system prior to scenario. A trainer will be made available to answer technical questions.

The following is a list of equipment which will be available for use, for the teams competing in the High Angle Rescue scenario for the IMRC 2016. Teams should become familiar with these systems, in order to best increase their chances to complete a safe and effective rescue.

#### **Pulleys:**

- Rock Exotica/CMC Omni-block singles and doubles
- Rock Exotica Single & Double G-Rated 2" PMP Pulley
- Petzl Kootenay Carriage

#### Primary Anchor Systems (Progress Capture/Raise and Lower Systems/Belay):

- CMC MPD 13mm
- Traverse Rescue 540
- Petzl I'D L
- Rescue Figure 8 with ears









- Conterra Scarab Rescue Tool
- NFPA Rappel 6 Bar Rack
- Tandem Prussiks with a PMP
- Petzl ASAP with the ASAP'SORBER

#### **Prebuilt Haul Systems:**

- CMC ProSeries Aztek, or Rock Exotica Aztek
- Petzl JAG
- CMC CSR2 Confined Space Rescue System

#### **Ascenders:**

- Petzl Ascension handled ascender (left and right),
- Petzl shunt
- Petzl Rescucender
- Gibbs Ascender
- Etriers.

#### **Patient Transport**

- CMC Pickoff strap
- Traverse Advantage Soft Sided Stretcher
- Backboard
- SKED
- Yates A.R.V Air-Lift Rescue Vest

#### **Artificial High Directional:**

Arizona Vortex

#### 5.1.3 Technical Standards

#### General

- Team members must be trained and competent in high angle rope rescue practices.
- Rope rescue team members must wear appropriate Personal Protective Equipment. See Rules Governing IMRC 2016 Section 4.3.

#### 5.1.4 Team Procedures, Roles, Responsibilities

#### General

• Rope rescue teams will be made up of six (6) competing team members.

International Mines Rescue Competition
Since 1999

- Rope rescue team members will check into the isolation area prior to the start of the competition.
- The simulation may utilize both live casualties and/or manikins during this event.
- No persons are to approach open edge without fall restraint or fall arrest safety apparel being worn and properly anchored. This hazard area is to be 2.8 meters or 9 feet from open edge.
- Before ascending or descending, the Simulation Lead Judge or designate will inspect rescuer prior to commencing.









#### Captain

- A team captain must be appointed for the High Angle Rope Rescue competition.
- Captain is responsible for:
  - Assess all risks, develop a plan to ensure the safety of all team members during the scenario and communicate that plan verbally to the Simulation Lead Judge prior to commencing.
  - Ensuring that any team member accessing the life edge of scenario is protected with fall restraint or full fall arrest with proper anchor.
  - Ensuring team members do not proceed with individual tasks while a rescue is taking place without receiving direction from the Captain
  - o Identifying and determining priorities for rope rescue by team members.

#### 5.1.5 Evaluation Criteria

#### General

- The Chief Judge and High Angle Rope Rescue Simulation Lead Judge with the assistance of a committee will develop and setup the simulation.
- The Simulation Lead Judge, Simulation Judge or any field officials can stop competing teams for safety concerns at any time during the rescue scenarios.
- There will be a minimum of two Simulation Judges per competing team.
- Simulation Judges will be competent in the judging of High Angle Rope Rescue simulations.
- Simulation Judges will keep accurate start and finish times on the score card
- The High Angle Rope Rescue Simulation Lead Judge will ensure the simulation is set up identically for each team

#### 6.0 THEORY ASSESSMENT

#### 6.1.1 **Format**

#### General

- A total of three (3) Mine Rescue Team members will participate in the testing. Teams will be notified of the number and position of team members participating prior to the event.
- All testing areas will be secluded and kept quiet as possible during testing.
- No spectators will be present during any testing.
- A single team Technical Translator will be allowed to conduct the testing with each team
- There will be one 20-question exam administered via computer input
- The question format may include pictures, videos or charts
- In the theory exam, teams will have a choice of answers for all questions (Multiple Choice Questionnaire) with only one (1) correct answer for each question.
- Any questions relating to calculations or referencing technical manuals need not be memorized in advance. Copies of notes and an explanation will be provided where appropriate.









Location:

### Cambrian College 1400 Barrydowne Rd, Sudbury, ON P3A 3V8 46.528399, -80.941114 46°31'42.2"N 80°56'28.0"W

Northern Centre for Advanced Technology Inc. 1545 Maley Drive, Sudbury, ON P3A 4R7 46.536479, -80.938823 (46°32'11.3"N 80°56'19.8"W)

#### 6.1.2 Equipment

General

None required

#### 6.1.3 Technical Standards

General

• Any necessary subject matter and reference manuals used for theory testing will be communicated two (2) months in advance of the competition.

#### 6.1.4 Team Procedures, Roles, Responsibilities

General

- The competing team will provide the names of the required team members who will partake in each of the testing scenarios.
- The team member names must be provided at the competition orientation session. Substitutes will only be allowed with proof of injury or illness.
- Three members will compete in the written section.
- The Chief Judge will rule on acceptable team member selections, if so required.

#### 6.1.5 Evaluation Criteria

General

- The Simulation Lead Judge (or designate) will supervise and administer the written test.
- Theory/Knowledge Testing questions found during competition to contain errors or misprinted information will be automatically removed from scoring for all teams competitors.
- During testing, discussions between members of the same competing team will be allowed. Discussions with members of other competing teams will not be permitted.
- Teams will be awarded two (2) points for a correct answer with their first response.
- Teams incorrectly answering on their first attempt will be allowed a 2<sup>nd</sup> attempt and will be awarded one (1) point if correct.
- If both responses are incorrect, the team will score zero (0) points and the correct answer will appear.

[Immediate Feedback Assessment Technique (IF-AT)]









#### Time Limit

- Total time limits will be communicated before the start of the examination.
- Time status will be communicated periodically during the examination with a one (1) minute final warning.
- The theory test will have a maximum of 20 minutes for completion.

Immediate Feedback Assessment Technique (IF-AT)

As previously specified, theory examination questions will be presented with multiple possible answers available for selection. Teams will be notified if their initial answer is incorrect. If the initial answer submitted is incorrect, the team will be given subsequent opportunities to select the correct answer from the remaining choices. Points will be awarded based on the number of attempts required to determine the correct answer. In this manner, Mine Rescue Teams will learn from any errors. Because points are awarded even in the event of an incorrect answer, Mine Rescue Teams have the opportunity to maintain a close gap with other teams rather than falling too far behind.

#### 7.0 TECHNICIAN BENCHING EQUIPMENT MAINTENANCE COMPETITION

#### 7.1.1 Format

General

Each team is allowed to appoint one participant (technician) to compete in maintaining the breathing apparatus. Registration will be made with the team registration.

#### 7.1.2 Equipment

General

PSS BG-4 Plus

Each participant shall be provided with a fully assembled breathing apparatus, a kit of tools, an isolation test kit and a Test-it 6100 for checks and maintenance, liquid for detection of leaks as well as all spare parts that are necessary to carry out the task. During execution of their tasks the participants are allowed to use exclusively the tools and measuring instruments provided by the organizer.

Should any unpredicted defects of the breathing apparatus are revealed during the contest, the referee shall advise the participants that such failures are out of the competition scope. The participant should turn back when only the referee stops the time count. After the defect is remedied the time count shall be restarted and the participant is allowed to carry on his task. When defects are caused by a participant's fault, the time count is not stopped.

If the defect caused by the participant fault prevents from further inspection the participant shall be disqualified.

When any test instrument is damaged by the participant, such a participant shall be disqualified.









#### 7.1.3 Technical Standards

General

PSS BG-4 Plus

#### 7.1.4 Technician Procedures, Roles, Responsibilities

General

The scheduled inspection shall be carried out in accordance with the maintenance manual of the apparatus manufacturer. All items of the inspection are awarded with the score of 0 or 1 point.

All checks must be listed on the inspection sheet in the sequence required by the breathing apparatus manufacturer and accompanied with values test parameters to be indicated by measuring instruments.

Use of incorrect units, e.g. 'bar' instead of 'mbar' shall be considered as error in the specific check and the participant shall score no points for such a check.

If a defect or deficiency is detected the participant should remedy it in the appropriate manner and write down the defect on the inspection sheet.

Failure to write down the detected defect on the inspection sheet shall be considered an omission in seeking for a defect or skipping the inspection item.

The task shall be considered as successfully performed when the breathing apparatus is completely assembled, checked and ready for use.

The participant is allowed to return to remedying defects that have not been eliminated beforehand provided that the assigned time limit is still sufficient.

When the checks are carried out not in line with the sequence prescribed by the maintenance manual the participant shall get no score (zero points) for each such check, even it is carried out correctly.

The overall time limit assigned for completion of the task, i.e. to carry out all checks and remedy all defects and deficiencies shall be 30 minutes. After that time the breathing apparatus should be ready for use. In five minutes prior to expiring of the time limit the referee shall advise the participant that his time limit is just about to expire.

The time count is started by the referee upon the participant appears at the inspection workbench.

If the time limit assigned to complete the competition is exceeded the participant shall be disqualified.









#### 7.1.5 Evaluation Criteria

General

The Technician Simulation Lead Judge and team shall prepare workbenches to carry out the contest. Workbenches shall be assigned to participant by drawing prior to commencement of the contest. Equipment and instruments as well as defects of breathing apparatuses shall be the same on all workbenches for the specific breathing apparatus type.

Technician Simulation Judges shall evaluate performance of participant on the current basis in line with the score card but are not allowed to meddle in execution of tasks by the participants. Upon completion of the task the participant shall hand over his "Breathing apparatus inspection sheet" to the Judge.

The decision of the Technician Simulation Lead Judge is final and binding.

The winner shall be nominated on the basis of the total score granted for correct completion of the scheduled inspection and for detection of deficiencies. The scores shall be granted according to the attached score card, where 1 (one) point shall be granted for each check that shall be carried out correctly and for each defect of deficiency that shall be detected and successfully remedied. Otherwise the participant shall get no score (zero points) for each incorrect check or omitted defect. The deficiencies can also stem from incorrect assembling of the breathing apparatus. When the score of several participants is the same the standing shall be determined against the time of the task completion.









### TECHNICIAN CONTEST - DRAEGER BG-4 Judges' Working Scorecard

Apparatus Serial #	Team No
Test Date	
Visual Inspection	Technician
Low Pressure Alarm	Company
(Negative Pressure Warning)	Company Time
Inhalation Valve	
Exhalation Valve	0 Bug
Drain Valve	1st Bug
Positive Pressure Leak	2nd Bug
Relief Valve	3rd Bug
High Pressure Leak Test	4th Bug 5th Bug
Constant Metering (Dosage) Minimum Valve	Time to Complete Problem
Bypass Valve	Min Sec
Residual Warning	With Sec
Battery Check	<del></del>
Test OK (initials)	Summary of Discounts
Replacement Parts	Written test questions incorrect:
Ready for Use	1 discount x =
	Monthly check not performed:
	5 discounts x =
	Monthly checks out of order:
	5 discounts (total) Deficiency (bug) not found:
	15 discounts x =
	Deficiency (bug) not corrected:
	5 discounts x=
	Sucking/Blowing Valves:
	10 discounts x =
	Apparatus not "Ready for Use":
	5 discounts (total)
	Total Discounts
Tu da a a	









Team No	
Technician	
Company	
Problems Found	Corrected
0 Bug	
1st Bug	
2nd Bug	
3rd Bug	
4th Bug	
5th Bug	
Judge's Signature	
Bench Person's Signa	ture









### DRAEGER BG-4 BREATHING APPARATUS Testing Procedures

STEP	TESTER	PROCEDURE HINTS
	SETTING	
1. Visual Inspection		Check for good
		condition.
2. Insert O_ Cylinder		Fully Charged.
3. Insert Canister		Factory Sealed or
		Reusable.
4. Facepiece and Hoses		Check for good
		condition.
5. Low pressure	Pos. Pres.	Watch pressure gauge,
warning	Pumping	activation should
		sound at 1.25 mbar.
6. Inhalation Valve	Pos. Pres.	Pinch exhalation hose -
	Pumping	10 mbar indicated on
		gauge.
7. Exhalation Valve	Neg. Pres.	Pinch inhalation hose –
	Pumping	10 mbar indicated on
		gauge.
8. Drain Valve	Pos. Pres.	Pump until 10mbar is
	Pumping	indicated on gauge.
		Fit sealing cap over
		tappet of relief valve as
		bag inflated.
		Drain valve must not
		open at 10 mb.
9. Leak Test	Leak Test	Reduce Pres. to 7 mbar
		pressure should not
		change by more than
		1 mbar in 1 minute.
10.Relief Valve	Pos. Pres.	Pump until relief valve
	Pumping	opens.
		Opening pressure,
		should lie between 2 &
		5 mbar.









# (Alternate Relief Valve Test, can be performed after Step 14.)

STEP	TESTER	PROCEDURE HINTS
	SETTING	
11. High Pressure Leak	Leak Test	Open cylinder valve. Alarm sounds
		once.
		CCR (Close Cylinder).
		Alarm sounds once, green indicator
		flashes.
		OCR (Open Cylinder)
12. Constant Metering Valve	Pos. Pres.	Inflate breathing bag.
	Pumping	Fit sealing cap over tappet of relieve
		valve.
	Dosage	Constant metering dosage should lie
	.05-2 L/min	between 1.5 and 1.9 L/min.
13. Minimum Valve	Neg. Pres.	Pump slowly until minimum valve is
	Pumping	opening.
		Minimum Valve should open
		between 0.1 and 2.5 mbar.
14. Bypass Valve	Leak Test	Press red button.
		Breathing bag inflates.
(Alternate Relief Valve Test)		Observe Reading on tester, relief
		valve should open between 2 and 5
		mbar.
15.	Low Pressure	Close cylinder valve.
	Warning	Warning sounds at 55 bar.
16.	Battery Check	If Failing:
		Alarm sounds 5 Times.
		Red indicator flashes for 30 sec.
		Bat is displayed.









# BG4 FUNCTION TEST RECORD UNIT#

Function Test Date (month as Jan – Dec)	mmm/dd/yy		
First initial, last name of technician			
Visual Inspection (incl. belt & lanyard)	OK/Repaired		
O <sub>2</sub> Cylinder Hydrostatic Test	OK/Replaced		
Face Mask Inspection	OK/Repaired		
Low Pressure Warning	<1.4 mbar		
Inhalation Valve	OK/Repaired		
Exhalation Valve	OK/Repaired		
Moisture Relief Valve	>15 mbar		
Positive Pressure Leak	OK/Repaired		
Pressure Relief Valve Activation	2-5 mbar		
O <sub>2</sub> Cylinder Pressure	>185 bar		
Constant Dosage Rate	1.5-1.9L/min		
Minimum Valve Activation Pressure	.1-2.5mbar		
Bypass Valve	OK/Repaired		
Low Pressure Alarm	55 bar		
Battery Test	OK/Repaired		
Date battery to be replaced	mmm/dd/yy		
Date soda lime to be replaced (6 months)	mmm/dd/yy		
Unit sealed and dated	Y/N		









# APPENDIX A1 – UNDERGROUND MINE RESCUE SCENARIO/SIMULATION











TEAM: Sudbury Basin Colora's (KGHM)

1. Team to be briefed by Briefing Officer  a. Information Available b. Missing People Underground c. Actions Taken So far d. Team Assignment e. Route of travel f. Reserve Mine Rescue Teams g. Expected Conditions h. Mine Rescue Equipment available i. Transportation available j. Location of First aid k. Communication Method l. Synchronize Watches m. Establish Time Limits  2. Prepare Emergency equipment to be used underground a. Gas checking equipment	MERITS  0-5 5  0-2 2  0-2 2  0-2 2  0-2 2  0-2 2  0-2 2  0-2 2  0-2 2  0-2 2  0-2 2  0-2 2  0-2 2  0-2 3  0-2 3  0-2 3  0-2 3  0-2 3  0-2 3  0-2 3  0-2 3
a. Information Available b. Missing People Underground c. Actions Taken So far d. Team Assignment e. Route of travel f. Reserve Mine Rescue Teams g. Expected Conditions h. Mine Rescue Equipment available i. Transportation available j. Location of First aid k. Communication Method l. Synchronize Watches m. Establish Time Limits	0-2 2 0-2 3 0-2 6
a. Information Available b. Missing People Underground c. Actions Taken So far d. Team Assignment e. Route of travel f. Reserve Mine Rescue Teams g. Expected Conditions h. Mine Rescue Equipment available i. Transportation available j. Location of First aid k. Communication Method l. Synchronize Watches m. Establish Time Limits	$     \begin{array}{c cccc}       0-2 & 2 & 2 \\       0-2 & 2 & 2 \\       0-2 & 2 & 2 \\       0-2 & 2 & 2 \\       0-2 & 2 & 2 \\       0-2 & 2 & 2 \\       0-2 & 2 & 2 \\       0-2 & 2 & 2 \\       0-2 & 0 & 2 \\       0-2 & 0 & 0 \\       0-2 & 0 & 0     \end{array} $
c. Actions Taken So far d. Team Assignment e. Route of travel f. Reserve Mine Rescue Teams g. Expected Conditions h. Mine Rescue Equipment available i. Transportation available j. Location of First aid k. Communication Method l. Synchronize Watches m. Establish Time Limits	$     \begin{array}{c cccc}       0-2 & Z & Z & Z & Z & Z & Z & Z & Z & Z & $
c. Actions Taken So far d. Team Assignment e. Route of travel f. Reserve Mine Rescue Teams g. Expected Conditions h. Mine Rescue Equipment available i. Transportation available j. Location of First aid k. Communication Method l. Synchronize Watches m. Establish Time Limits	$     \begin{array}{c cccc}       0-2 & Z & Z & Z & Z & Z & Z & Z & Z & Z & $
d. Team Assignment e. Route of travel f. Reserve Mine Rescue Teams g. Expected Conditions h. Mine Rescue Equipment available i. Transportation available j. Location of First aid k. Communication Method l. Synchronize Watches m. Establish Time Limits  2. Prepare Emergency equipment to be used underground	$     \begin{array}{c cccc}       0-2 & 2 & \\       0-2 & 2 & \\       0-2 & 2 & \\       0-2 & 2 & \\       0-2 & 2 & \\       0-2 & 2 & \\       0-2 & 2 & \\       0-2 & 0 & \\       0-2 & 0 & \\       0-2 & 0 & \\     \end{array} $
e. Route of travel f. Reserve Mine Rescue Teams g. Expected Conditions h. Mine Rescue Equipment available i. Transportation available j. Location of First aid k. Communication Method l. Synchronize Watches m. Establish Time Limits	$     \begin{array}{c cccc}       0-2 & Z & Z \\       0-2$
g. Expected Conditions h. Mine Rescue Equipment available i. Transportation available j. Location of First aid k. Communication Method l. Synchronize Watches m. Establish Time Limits  2. Prepare Emergency equipment to be used underground	$     \begin{array}{c cccc}       0-2 & Z \\       0-2 & Ø \\       0-2 & Ø \\     \end{array} $
h. Mine Rescue Equipment available i. Transportation available j. Location of First aid k. Communication Method l. Synchronize Watches m. Establish Time Limits  2. Prepare Emergency equipment to be used underground	$     \begin{array}{c cccc}       0-2 & 2 & \\       0-2 & 2 & \\       0-2 & 2 & \\       0-2 & 0 & \\       0-2 & 0 & \\     \end{array} $
i. Transportation available j. Location of First aid k. Communication Method l. Synchronize Watches m. Establish Time Limits  2. Prepare Emergency equipment to be used underground	$ \begin{array}{c cccc} 0-2 & 2 \\ 0-2 & 2 \\ 0-2 & \emptyset \\ 0-2 & \emptyset \end{array} $
j. Location of First aid k. Communication Method l. Synchronize Watches m. Establish Time Limits  2. Prepare Emergency equipment to be used underground	0-2 Z 0-2 Ø 0-2 Ø
k. Communication Method I. Synchronize Watches m. Establish Time Limits  2. Prepare Emergency equipment to be used underground	0-2 Ø 0-2 Ø
Synchronize Watches     m. Establish Time Limits  2. Prepare Emergency equipment to be used underground	0-2 <u>Ø</u>
m. Establish Time Limits  2. Prepare Emergency equipment to be used underground	
Prepare Emergency equipment to be used underground	0-2_2
	TALKS I
	100 I
a. Gas checking equipment	0-3 3
b. First Aid Supplies	0-3 5
c. Back up apparatus for team	0-5 5
d. Maps, note pad	0-5 5
e. Basket/Backboard	0-3 3
f. Casualty Breathing Apparatus	0-5 5
g. Firefighting equipment	0-5_5



- 3. Prepare team breathing apparatuses
  - a. Perform high pressure leak test
  - b. Install Ice
  - c. Anti fog mask

- 0-10\_0
- 0-5 5
- 0-5 5

4. Team under oxygen outside of Fresh Air Base

0 – 10 //

5. Verify breathing apparatus is functioning properly

0-10/0

- 6. Ensure Toyota operator is wearing breathing apparatus
- 0-5

- 7. Contact BO
  - a. Time Limit

0-2 2

b. Destination

0-2\_*Z* 

c. Time Team under 02

0-2<u>2</u>

8. Board Toyota in a safe manner

0-5\_5

9. Enter mine via Portal

0-5\_5

10. Stop inside of portal

0-5 5





#### 11. Evaluate Conditions

11. Evaluate Conditions				~
	a.	Smoke	0-2_	_
	b.	CO	0-2	2
	c.	Radio	0-2_ 0-2_ 0-2_	Z
12. Perform Team Check				-
	d.	BG4 functioning Team OK	0-5_	
	e.	Team OK	0-5_	2
	f.	Record info	0-5_	2
12. Contact BO via radia		THE PERSON		CM (e
13. Contact BO via radio				3
a. Report Conditions			0 - 3 0 - 2	
b. Team Status			0-2	
14. Proceed down ramp via Toyota		rameter must	0-5	
	***			
15. Locate unconscious Truck Operator			0 - 20 _	
16. Contact BO via Radio				
a. Report Truck operator located			0-5_	5
b. Report Conditions			0-5 0-3 0-2	3
c. Time Limit			0-2_	Z
d. Destination			0 – 2 _	2
e. Team Status			0 - 10	







- a. Airway
- b. Breathing
- c. Circulation
- d. Gross Bleed Check

0-3	3
0-3	3

18 Protect	Casualty	from	further	contamination
TO: I TOTECT	Casuaity	11 0111	Turtifer	Contamination

0-5 5

19. Identify a	as Load and Go
----------------	----------------

0-18

### OR

### Perform First Aid (Secondary)

- a. Check head, eyes, ears b. Check neck and throat
- c. Check arms (left and right)
- d. Check Torso (front and Sides)
- e. Check Pelvis
- f. Check Legs and Feet (left and right)
- g. Check Back

- 0 4
- 0 20 - 2
- 0-4\_
- 0 2

## 19. Load casualty into stretcher

## 20. Transport Casualty to First Aid (surface)

0-10\_/0





### 21. Contact BO from FAB

а.	Report Casualty turned over to F/A
b.	Report Toyota is no longer available

- c. Time Limit
- d. Destipation
- e. Team Status

0-5	_
-----	---

- 0-3\_\_\_\_
- 0 2 \_\_\_\_\_
- 0-2\_\_\_\_\_

# 22. Travel to Truck location via Ramp Portal

0-5\_\_\_\_

### 23. Ensure Truck is safe to pass

- a. Wheel Chocks
- b. Master Switch

0-5\_5

# 24. Proceed to 3930 Sill Ore pass

0-5\_5

#### 25. Contact BO

- a. Report Conditionsb. Time Limit to Build wallc. Report Increase in Temperature
- d. Team Status

- <sub>0-3</sub>\_3
- 0-2 0
- 0-3\_5

#### 26. Fabricate Wall

- a. Wall Completed within Time limit (20 min)b. Construction materials used are sufficient
- c. Construction Method Sufficient
- d. Construction work evenly shared

- 0-20 20
- 0-10 <u>8</u> 0-10 <u>/0</u>
- 0-10\_/0



27. Conta	ct BO	
	Report Conditions	0-3
	Report Status of Wall	0, 5
	Time Limit	0-5 <u>5</u> 0-2 <u>2</u> 0-2 <u>2</u>
	Destination	0-2 2
	Team Status	0-10_/0
e.		0-10_70
	(4783042000000 3 15000000	
28. Trave	to 150 L Refuge Station	0-5_5
18		4 27
29. Conta	ct Construction Miner	
	Perform verbal Primary	0-5
	Obtain info about his partner	0-5
	Place miner in a safe location (ie Refuge Station)	0-10_/0
30. Conta	ct BO	12 (195)
	Report Conditions	0-3
	Report Status of Construction Miner	0-5
	Time Limit	0-2
	Destination	0-2 0
	Team Status	0-10
		and a
31. Trave	l to RV ramp via 4210 Spur X-over	0-5_5
		W 1 0-
32. Locat	e Injured Construction miner at DS7	0-20 <u>20</u>

Workplace Safety North



#### 33. Contact BO via Radio

- a. Report Construction Miner located
- b. Report Conditions
- c. Time Limit
- d. Destination
- e. Team Status

0-5	5
0-3	3
0-2	2

0-10\_*/*0

### 34. Ensure Scoop is safe

- a. Wheel Chocks
- b. Master Switch

0 – 5 _	5	
0-5	<	

#### 35. Perform First Aid (Primary)

- f. Airway
- g. Breathing
- h. Circulation
- i. Gross Bleed Check

0-3	<u> </u>
0 - 3	

- 0-3 3
- 0-3 Z

# 36. Apply oxygen to casualty

## 37. Identify as Load and Go

### OR

# 38. Perform First Aid (Secondary)

- j. Check head, eyes, ears
- k. Check neck and throat
- I. Check arms (left and right)
- m. Check Torso (front and Sides)
- n. Check Pelvis

0 - 2 0 - 2 0 - 4 0 - 2 0 - 2 Workplace Safety North

Revised: May 2016



	Check Legs and Feet (left and right)	0-4
p.	Check Back	0 – 2
è		
1		
7-363	and the second s	
-	id Treatment	5
C.	Put on medical gloves	0-5 <u> </u>
d.	Support Casualty in position found	0-20_ <i>2</i> 0
e.	Control bleeding	0 – 10 <u>/O</u>
f.	Support Embedded object in position found	0-5 <u>5</u> 0-20 <u>20</u> 0-10 <u>/0</u> 0-5 <u>2</u>
40 Locate	e rescue tools (eDraulics)	0-10 <u>/</u> 0
40. LOCAL	e rescue tools (ebraulics)	0-10
41. Ensur	e tools are safe to use	0-5 5
<u> </u>		
42. Cut C	asualty Free	0-10_/0
	Once Casualty is cut free	
g.	Place casualty on their side in the basket	0-20 <u>20</u>
ĥ.	Recheck vitals	0-5_5
i.	Evacuate casualty to surface	0-20 <u>20</u> 0-5 <u>5</u> 0-20 <u>20</u>

107



13. Contact BO	
a. Report Casualty turned over to F/A	0-5_5
b. Time Limit	0-2 2
c. Destination	0-2 2
d. Team Status	0-5 5 0-2 2 0-2 2 0-10 10
4. Get Team out of O <sub>2</sub>	0-10
Miscellaneous:	
	Demerit:
Extreme unsafe action:	Max (-25)
Extreme poor casualty Care:	Max (-20 per casualty)
Damage to Mine Rescue Equipment:	Max (-5 per item)



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(c. Comparability Start Black e-Gillion		
M		
	NESSERVICES	



Team Number	Tuesday August 23rd, 2016		
1	Canada 2	Vale Manitoba Operations	
2	Canada 2	Sudbury Basin Cobras, KGHM	
3	Canada 2	Vale Sudbury West Mines	
4	USA	MSHA Mine Emergency Unit No.1	
	— Break —	Break	
5	Russia	EMERCOM	
6	Russia	JSC SUEK	
7	India	Singareni	
8	tndia	Coal India Ltd.	
9	Vietnam	Vinacomin	
10	Slovakia	НВР	
11	Australia	Peabody Energy Wambo Coal	
12	Multinational	Goldcorp Americas	
13	Canada 1	Agnico Eagle Goldex Mine	
	— Break —	Break	
14	Canada 1	Compass Minerals Goderich Mine	
15	Canada 1	Carneco McArthur River	
16	Canada 1	Kirkland Lake Gold	
17	Columbia	Colombia Coal Company	
18	Columbia	Fiebre del Oro (Gold Fever)	
19	Ukraine	State Militarized Mine Rescue Squad	
20	China	Guizhou Yonggui Energy Company	
21	China	China Pingmei Senma Group	
22	China	Shaanxi Coal and Chemical Group	
	Break	Break	
23	Poland	Bytom Weglokoks	
24	Poland	Scorpions Team Katowice	
25	Poland	Gray Wolfs	
26	Poland	KGHM White Eagles	
27	treland	Boliden Tara Mines	



me U	nder O <sub>2</sub>	Time Casualty at F/A	
	silbuda V sib c		MERITS
1.	Team to be briefed by Briefing Officer		0-5
	a. Information Available		0-2
	b. Missing People Underground		0-2
	c. Actions Taken So far		0-2
	d. Team Assignment		0-2
	e. Route of travel		0-2
	f. Reserve Mine Rescue Teams		0-2
	g. Expected Conditions		0-2
	h. Mine Rescue Equipment available		0-2
	i. Transportation available		0-2
	j. Location of First aid		0-2
	k. Communication Method		0-2
	I. Synchronize Watches		0-2
	m. Establish Time Limits		0-2
án.			
2.	Prepare Emergency equipment to be used	l underground	
	a. Gas checking equipment		0-3
	b. First Aid Supplies		0-3
	c. Back up apparatus for team		0-5
	d. Maps, note pad		0-5
	e. Basket/Backboard		0-3
	f. Casualty Breathing Apparatus		0-5
	g. Firefighting equipment		0 – 5



epare team breathing apparatuses	
	0-10
b. Install Ice	0-5
c. Anti fog mask	0-5
am under oxygen outside of Fresh Air Base	0-10
erify breathing apparatus is functioning properly	0-10_
sure Toyota operator is wearing breathing apparatus	0-5_
ontact BO	
a. Time Limit	0-2_
b. Destination	0-2_
c. Time Team under 0 <sub>2</sub>	0-2_
pard Toyota in a safe manner	0-5
nter mine via Portal	0-5_
op inside of portal	0-5
	a. Perform high pressure leak test b. Install Ice c. Anti fog mask  eam under oxygen outside of Fresh Air Base  erify breathing apparatus is functioning properly  nsure Toyota operator is wearing breathing apparatus  ontact BO a. Time Limit



11. Evaluate	Conditions			
			Smoke	0-2
			CO	0-2
		c.	Radio	0-2
185				Aller I
12. Perform	Team Check			
		d.	BG4 functioning	0-5
		e.	Team OK	0-5
		f.	Record info	0-5
13. Contact				
	eport Conditions			0-3
b. T	eam Status			0-2
14. Proceed	down ramp via Toyota			0 - 5
15. Locate u	nconscious Truck Operator			0 - 20
16. Contact	BO via Radio			
	eport Truck operator located			0-5
	eport Conditions			0-3
c. T	ime Limit			0-2
d. C	estination			0-2
e. T	eam Status			0 – 10



17. Perform First Aid (Primary)	
a. Airway	0-3
b. Breathing	0-3
c. Circulation	0-3
d. Gross Bleed Check	0-3
18. Protect Casualty from further contamination	0-5
19. Identify as Load and Go	0 – 18
OR	
Perform First Aid (Secondary)	
a. Check head, eyes, ears	0-2
b. Check neck and throat	0-2
c. Check arms (left and right)	0-4
d. Check Torso (front and Sides)	0-2
e. Check Pelvis	0-2
f. Check Legs and Feet (left and right)	0-4
g. Check Back	0-2
	0.10
19. Load casualty into stretcher	0-10
20. Transport Casualty to First Aid (surface)	0-10



21. Contact BO from FAB	
a. Report Casualty turned over to F/A	0-5
b. Report Toyota is no longer available	0-3
c. Time Limit	0-2
d. Destination	0-2
e. Team Status	0-10
22. Travel to Truck location via Ramp Portal	0-5
23. Ensure Truck is safe to pass	
a. Wheel Chocks	0-5
b. Master Switch	0-5
24. Proceed to 3930 Sill Ore pass	0-5
25. Contact BO	
a. Report Conditions	0-3_3
b. Time Limit to Build wall	0-2 <u>O</u> 0-3 <u>3</u>
c. Report Increase in Temperature	
d. Team Status	0-10 <u>iO</u>
SCHOOL SECTION AND ADDRESS OF THE PERSON ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON ADDRE	
	13 × 13 × 1815
26. Fabricate Wall	
a. Wall Completed within Time limit (20 min)	0-20 <i>20</i>
b. Construction materials used are sufficient	0-10
c. Construction Method Sufficient	0-10 10
d. Construction work evenly shared	0-10 10
Wall Built very well	



27. Conta	ct BO	A 2
	Report Conditions	0-3_6
	Report Status of Wall	0-5 5
c.	Time Limit	0-2 <u>2</u>
d.	Destination	0-2_2
e.	Team Status	0-10_ <i>l0</i> _
	Could not hear captain reporting to BO	Due to mo
28. Travel	to 150 L Refuge Station	0-5
a.	ct Construction Miner Perform verbal Primary Obtain info about his partner	0-5 0-5
	Place miner in a safe location (ie Refuge Station)	0-10
30. Conta		0 3
	Report Conditions Report Status of Construction Miner	0-3 0-5
	Time Limit	0-2
	Destination	0-2
	Team Status	0-10
31. Trave	l to RV ramp via 4210 Spur X-over	0-5
		-



33. Contact BO via Radio		
a. Report Constructi	on Miner located	0-5
b. Report Conditions		0-3
c. Time Limit		0-2
d. Destination		0-2
e. Team Status		0-10
34. Ensure Scoop is safe		
a. Wheel Chocks		0-5
b. Master Switch		0-5
25. Barfarra First Aid (Brisser		
35. Perform First Aid (Primar	γ)	0.2
f. Airway g. Breathing		0-3
h. Circulation		0-3
i. Gross Bleed Checl		0-3
i. Gross bleed cheek		
	V	
36. Apply oxygen to casualty		0-5
37. Identify as Load and Go		0-18
	OR	
	OK	
38. Perform First Aid (Secon	dary)	
<ol><li>j. Check head, eyes,</li></ol>		0-2
k. Check neck and the		0-2
<ol> <li>Check arms (left a</li> </ol>		0-4
m. Check Torso (fron	it and Sides)	0 – 2
n. Check Pelvis		0 – 2
Revised: May 2016	Page   7 of 11	Workplace Safety North

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<ul> <li>check Legs and Feet (left and right)</li> </ul>	0-4
p. Check Back	0-2
39. First Aid Treatment	
c. Put on medical gloves	0-5
d. Support Casualty in position found	0 – 20
e. Control bleeding	0-10
f. Support Embedded object in position found	0-5
10. Legate reserve tools («Dusville»)	0 10
10. Locate rescue tools (eDraulics)	0-10
11. Ensure tools are safe to use	0-5
12. Cut Casualty Free	0-10
Once Casualty is cut free	
g. Place casualty on their side in the basket	0 – 20
h. Recheck vitals	0-5
i. Evacuate casualty to surface	0-20

CANADA 2016



3. Contact BO	
a. Report Casualty turned over to F/A	0-5
b. Time Limit	0-2
c. Destination	0-2
d. Team Status	0-10
4. Get Team out of O₂	0 – 10
	Philipped Committee of the Committee of
Miscellaneous:	
	Demerit:
Extreme unsafe action:	Max (-25)
Extreme poor casualty Care:	Max (-20 per casualty)
CANADI	4 2016
Damage to Mine Rescue Equipment:	Max (-5 per item)



3 - 1.30 9 <u>-9.20 80</u>	
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Team Number	Tuesday Au	gust 23rd, 2016
1	Canada 2	Vale Manitoba Operations
2	Canada 2	Sudbury Basin Cobras, KGHM
3	Canada 2	Vale Sudbury West Mines
4	USA	MSHA Mine Emergency Unit No.1
	Break	Break
5	Russia	EMERCOM
6	Russia	JSC SUEK
7	tndia	Singareni
8	India	Coal India Ltd.
9	Vietnam	Vinacomin
10	Slovakia	НВР
11	Australia	Peabody Energy Warnbo Coal
12	Multinational	Goldcorp Americas
13	Canada 1	Agnico Eagle Goldex Mine
	— Break —	Break
14	Canada 1	Compass Minerals Goderich Mine
15	Canada 1	Cameco McArthur River
16	Canada 1	Kirkland Lake Gold
17	Columbia	Colombia Coal Company
18	Columbia	Fiebre del Oro (Gold Fever)
19	Ukraine	State Militarized Mine Rescue Squad
20	China	Guizhou Yonggui Energy Company
21	China	China Pingmei Senma Group
22	China	Shaanxi Coal and Chemical Group
	— Break —	Break
23	Poland	Bytom Wegłokoks
24	Poland	Scorpions Team Katowice
25	Poland	Gray Wolfs
26	Poland	KGHM White Eagles
27	treland	Boliden Tara Mines





ARED SIN	TEAM: KGHM +2
e Casualty at F/A	Time Under O <sub>2</sub> \\\ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
MERI	
0-5	1. Team to be briefed by Briefing Officer
0 3	a. Information Available
0-2 0-2 0-2 0-2 0-2 0-2 0-2 0-2	b. Missing People Underground
0-2	c. Actions Taken So far d. Team Assignment
0-2	d. Team Assignment
0-2	e. Route of travel
0-2	f. Reserve Mine Rescue Teams
0-2	g. Expected Conditions h. Mine Rescue Equipment available
0-2	h. Mine Rescue Equipment available
0-2	i. Transportation available
0-2	j. Location of First aid
0-2_0_	k. Communication Method
0-2 <u>0</u> 0-2	I. Synchronize Watches
0-2	m. Establish Time Limits
erground	2. Prepare Emergency equipment to be used un
0-3	a. Gas checking equipment
0-3	b. First Aid Supplies
0-5	c. Back up apparatus for team
0-5	d. Maps, note pad
0-3	e. Basket/Backboard
0-5	f. Casualty Breathing Apparatus
0-5	g. Firefighting equipment



3. Prepare team breathing apparatuses	
a. Perform high pressure leak test	0-10 0-5
b. Install Ice	0-5
c. Anti fog mask	0-5
4. Team under oxygen outside of Fresh Air Base	0-10
5. Verify breathing apparatus is functioning properly	0-10
6. Ensure Toyota operator is wearing breathing apparatus	0-5_0
7. Contact BO	
a. Time Limit	0-2
b. Destination	0-2
c. Time Team under 0 <sub>2</sub>	0-2 0-2 0-2
8. Board Toyota in a safe manner	0-5
9. Enter mine via Portal	0-5
10. Stop inside of portal	0-5
CANADA 20	



11. Evaluate Conditions			
	a.	Smoke	0-2
	b.	CO	0-2
	c.	Radio	0-2
		V. S. V. Sent	37
12. Perform Team Check			
		BG4 functioning	
		Team OK	0-5
	f.	Record info	0-5
13. Contact BO via radio			
a. Report Conditions			0-3
b. Team Status			0-2
			NEW N
14. Proceed down ramp via Toyota			0 - 5
15. Locate unconscious Truck Operator			0 - 20
	- 1		
16. Contact BO via Radio			
a. Report Truck operator located			0-5
b. Report Conditions			0-3
c. Time Limit			0-2
d. Destination			0-2
e. Team Status			0-10



	m First Aid (Primary)	
	Airway	0-3
	Breathing	0-3
	Circulation	0-3
d.	Gross Bleed Check	0-3
18. Prote	ct Casualty from further contamination	0-5
19. Identi	fy as Load and Go	0-18
	OR	
- 4	BEET STATES OF STATES	
	rm First Aid (Secondary)	0.3
	Check head, eyes, ears	0-2
	Check neck and throat	0-2 0-4
	Check arms (left and right) Check Torso (front and Sides)	0-4
	Check Pelvis	0-2
-	Check Legs and Feet (left and right)	0-4
	Check Back	0-2
19. Load	casualty into stretcher	0-10
20. Trans	port Casualty to First Aid (surface)	0-10



21. Contact BO fro	om FAB	
a. Report	: Casualty turned over to F/A	0-5
b. Report	: Toyota is no longer available	0-3
c. Time L	imit AAA IB	0-2
d. Destin	ation	0-2
e. Team S	Status	0-10
22. Travel to Truc	k location via Ramp Portal	0-5
23. Ensure Truck	is safe to pass	
a. Wheel		0-5
b. Maste		0-5
24. Proceed to 39	30 Sill Ore pass	0-5
25. Contact BO		
	t Conditions	0-3
•	imit to Build wall	0-2
c. Repor	t Increase in Temperature	0-3
d. Team		0-10
26. Fabricate Wa		
a. Wall C	ompleted within Time limit (20 min)	0 – 20
b. Consti	ruction materials used are sufficient	0-10
c. Consti	ruction Method Sufficient	0-10
	ruction work evenly shared	0-10



27. Contact	BO	A
	eport Conditions	0-3
	eport Status of Wall	0-5
	ime Limit	0-2
d. D	estination	0-2
e. T	eam Status	0-10
28. Travel to	150 L Refuge Station	0-5
	Construction Miner	
	erform verbal Primary	0-5
	Obtain info about his partner	0-5
c. F	lace miner in a safe location (ie Refuge Station)	0-10
Į.		
30. Contact		
	Report Conditions	0-3
	Seport Status of Construction Miner Time Limit	0-5 0-2
	Destination	0-2
	eam Status	0-10
31. Travel to	o RV ramp via 4210 Spur X-over	0-5



33. Contact BO via Radio	
a. Report Construction Miner located	0-5
b. Report Conditions	0-3
c. Time Limit	0-2
d. Destination	0-2
e. Team Status	0-10
34. Ensure Scoop is safe	
a. Wheel Chocks	0-5
b. Master Switch	0-5
b. Muster switch	
35. Perform First Aid (Primary)	
f. Airway	0-3
g. Breathing	0-3
h. Circulation	0-3
i. Gross Bleed Check	0-3
	The state of the s
36. Apply oxygen to casualty	0-5
30. Apply oxygen to casualty	
37 Identify as load and Co	0-18
37. Identify as Load and Go	0-18
OR	
OK	
38. Perform First Aid (Secondary)	
j. Check head, eyes, ears	0-2
k. Check neck and throat	0-2
I. Check arms (left and right)	0-4
m. Check Torso (front and Sides)	0-2
n. Check Pelvis	0-2
	~ ~ <del></del>

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0.	Check Legs and Feet (left and right)	0 – 4
p.	Check Back	0-2
20 Einst A	id Treatment	VIII I
	Put on medical gloves	0-5
	Support Casualty in position found	0-20
	Control bleeding	0-10
	Support Embedded object in position found	0-10
1.	Support Embedded object in position found	0-3
40. Locate	e rescue tools (eDraulics)	0-10
	A PERSONAL MANAGEMENT OF THE PROPERTY OF THE P	
41. Ensur	e tools are safe to use	0-5
42. Cut Ca	asualty Free	0-10
	THE STATE OF THE S	
	-Once Casualty is cut free	
g.	Place casualty on their side in the basket	0-20
_	Recheck vitals	0-5
i.	Evacuate casualty to surface	0-20
		**

CANADA 2016



3. Contact BO  a. Report Casualty turned over to F/A	0-5
b. Time Limit	0-2
c. Destination	0-2
d. Team Status	0-2 0-10
4. Get Team out of O <sub>2</sub>	0 – 10
Miscellaneous:	
	Demerit:
Extreme unsafe action:	Max (-25)
	HOSPANITES AND INVIDENT
Extreme poor casualty Care:	Max (-20 per casualty)
PARTETAL	COALC
Damage to Mine Rescue Equipment:	Max (-5 per item)



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Team Number	Tuesday Au	gust 23rd, 2016
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3	Canada 2	Vale Sudbury West Mines
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	— Break —	Break
5	Russia	EMERCOM
6	Russia	JSC SUEK
7	India	Singareni
8	India	Coal India Ltd.
9	Vietnam	Vinacomin
10	Slovakia	HSP
11	Australia	Peabody Energy Wambo Coal
12	Multinational	Goldcorp Americas
13	Canada 1	Agnico Eagle Goldex Mine
	Break	Break
14	Canada 1	Compass Minerals Goderich Mine
15	Canada 1	Cameco McArthur River
16	Canada 1	Kirkland Lake Gold
17	Calumbia	Colombia Coal Company
18	Columbia	Fiebre del Oro (Gold Fever)
19	Ukraine	State Militarized Mine Rescue Squad
20	China	Guizhou Yonggui Energy Company
21	China	China Pingmei Senma Group
22	China	Shaanxi Coal and Chemical Group
	— Break —	Break
23	Poland	Bytom Weglokaks
24	Poland	Scorpions Team Katowice
25	Poland	Gray Wolfs
26	Poland	KGHM White Eagles
27	Ireland	Boliden Tara Mines

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ime U	nder O	2	Time Casualty at F/A	
				MERITS
1.	Team :	to be briefed by Briefing Officer		0-5
		Information Available		0-2
		Missing People Underground		0-2
		Actions Taken So far		0-2
		Team Assignment		0-2
		Route of travel		0-2
	f.	Reserve Mine Rescue Teams		0-2
	g.	Expected Conditions		0-2
	_	Mine Rescue Equipment available		0-2
	i.	Transportation available		0-2
	j.	Location of First aid		0-2
	k.	Communication Method		0-2
	1.	Synchronize Watches		0-2
	m.	Establish Time Limits		0-2
2.	•	e Emergency equipment to be used	underground	
		Gas checking equipment		0-3
		First Aid Supplies		0-3
		Back up apparatus for team		0-5
	d.	Maps, note pad		0-5
	e.	Basket/Backboard		0-3
	f.	Casualty Breathing Apparatus		0-5
	g.	Firefighting equipment		0-5



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11. Evaluate Conditions			
	a.	Smoke	0-2
	b.	CO	0-2
	C.	Radio	0-2
			E ST
12. Perform Team Check			
	d.	BG4 functioning	0 – 5
		Team OK	0-5
	f.	Record info	0-5
13. Contact BO via radio			
a. Report Conditions			0-3
b. Team Status			0-2
14. Proceed down ramp via Toyota			0 - 5
15. Locate unconscious Truck Operator			0 - 20
16. Contact BO via Radio			
a. Report Truck operator located			0-5
b. Report Conditions			0-3
c. Time Limit			0-2
d. Destination			0-2
e. Team Status			0-10



17. Perform First Aid (Primary)	
a. Airway	0-3
b. Breathing	0-3
c. Circulation	0-3
d. Gross Bleed Check	0-3
18. Protect Casualty from further contamination	0-5
19. Identify as Load and Go	0-18
OR	
Perform First Aid (Secondary)	
a. Check head, eyes, ears	0-2
b. Check neck and throat	0-2
c. Check arms (left and right)	0-4
d. Check Torso (front and Sides)	0-2
e. Check Pelvis	0-2
f. Check Legs and Feet (left and right)	0-4
g. Check Back	0-2
19. Load casualty into stretcher	0-10
20. Transport Casualty to First Aid (surface)	0-10





21. Conta	act BO from FAB	
′ \ a.	Report Casualty turned over to F/A	0-5
\b.	Report Toyota is no longer available	0-3
- 1	Time Limit	0-2
d.	Destination	
e.	Team Status	0-2
22. Trave	l to Truck location via Ramp Portal	0-5
23 Englis	re Truck is safe to pass	
	Wheel Chocks	0-5
1 7	Master Switch	0-5 0-5
	Waster Switch	
V		
24. Proce	eed to 3930 Sill Ore pass	0-5
25. Conta	act 80	
	Report Conditions	0-3 0-2 0-3 3
	Time Limit to Build wall	0-2
	Report Increase in Temperature	0-3 3
	Team Status	0-10 10
33 25	5 wet - 84 MINS	
	SHOWEN PLA	NJC.
26. Fabri	cate Wall	
/ a.	Wall Completed within Time limit (20 min) 17	MI'N' 0-20 20
/ b	. Construction materials used are sufficient	0-10 😝 🖰
c.	Construction Method Sufficient	0-10 /0
d	. Construction work evenly shared	0-10_10_
(a)(a)(A)(a)(a)	Paust & STADON THEM HOOD NICH	hand + Francesus



		y/
27. Contact BO		
a. Report Condition	ons	0-3
b. Report Status of		0-5 5
c. Time Limit		0-2 2
d. Destination		0-2 2
e. Team Status		0-10 <i>10</i>
Cauca No	HERE REPORT P IN ON REPORT M	
<i>Vo</i> √ <i>S</i> 28. Travel to 150 L Refuge	Station	0-5
29. Contact Construction I		0 5
a. Perform verbal		0-5
b. Obtain info abo		0-5 0-10
c. Place miner in	a safe location (ie Refuge Station)	0-10
20. Cantact BO		
30. Contact BO		0.2
a. Report Condition	ons of Construction Miner	0-3 0-5
c. Time Limit	of Construction winter	0-3
d. Destination		0-2
e. Team Status		0-10
31. Travel to RV ramp via	4210 Spur X-over	0-5
32. Locate Injured Constru	uction miner at DS7	0-20



33. Contact BO via Radio  a. Report Construction Miner b. Report Conditions c. Time Limit d. Destination e. Team Status	0-5 0-3 0-2 0-2 0-10
34. Ensure Scoop is safe a. Wheel Chocks b. Master Switch	0-5 0-5
35. Perform First Aid (Primary) f. Airway g. Breathing h. Circulation i. Gross Bleed Check	0-3 0-3 0-3 0-3 0-3
36. Apply oxygen to casualty	0-5
37. Identify as Load and Go	0-18
38. Perform First Aid (Secondary) j. Check head, eyes, ears k. Check neck and throat l. Check arms (left and right) m. Check Torso (front and Side n. Check Pelvis  Revised: May 2016	OR  0-2 0-2 0-4 0-2 0-2 0-4 0-2 0-2 0-2 Workplace Safety North

Revised: May 2016



0.	Check Legs and Feet (left and right)	0-4
p.	Check Back	0-2
		, same
39. First A	id Treatment	
c.	Put on medical gloves	0-5
	Support Casualty in position found	0 – 20
	Control bleeding	0-10
	Support Embedded object in position found	0-5
40. Locate	e rescue tools (eDraulics)	0-10
41. Ensur	e tools are safe to use	0-5
42. Cut Ca	asualty Free	0-10
	Once Convolter is out from	
	-Once Casualty is cut free	
g.	Place casualty on their side in the basket	0 – 20
h.	Recheck vitals	0-5
i.	Evacuate casualty to surface	0 – 20
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CANADA 2016



3. Contact BO	
a. Report Casualty turned over to F/A	0-5
b. Time Limit	0-2
c. Destination	0-2
d. Team Status	0-10
4. Get Team out of O₂	0-10
Miscellaneous:	
	Demerit
Extreme unsafe action:	Max (-25)
Extreme poor casualty Care:	Max (-20 per casualty)
CARTATA	1 2016
Damage to Mine Rescue Equipment:	Max (-5 per item)



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Team Number	Tuesday Au	gust 23rd, 2016	
1	Canada 2	Vale Manitoba Operations	
2	Canada 2	Sudbury Basin Cobras, KGHM	
3	Canada 2	Vale Sudbury West Mines	
4	USA	MSHA Mine Emergency Unit No.1	
	— Break —	Break	
5	Russia	EMERCOM	
6	Russia	JSC SUEK	
7	India	Singareni	
8	tndia	Coal India Ltd.	
9	Vietnam	Vinacomin	
10	Slovakia	HBP	
11	Australia	Peabody Energy Wambo Coal	
12	Multinational	Goldcorp Americas	
13	Canada 1	Agnico Eagle Goldex Mine	
	Break	Break	
14	Canada 1	Compass Minerals Goderich Mine	
15	Canada 1	Cameco McArthur River	
16	Canada 1	Kirkland Lake Gold	
17	Columbia	Colombia Coal Company	
18	Columbia	Fiebre del Oro (Gold Fever)	
19	Ukraine	State Militarized Mine Rescue Squad	
20	China	Guizhou Yonggui Energy Company	
21	China	China Pingmei Senma Group	
22	China	Shaanxi Coal and Chemical Group	
	— Break —	Break	
23	Poland	Bytom Weglokoks	
24	Poland	Scorpions Team Katowice	
25	Poland	Gray Wolfs	
26	Poland	KGHM White Eagles	
27	treland	Boliden Tara Mines	



me U	nder O	2	Time Casualty at F/A	jiny
				MERIT
1.	Team	to be briefed by Briefing Officer		0-5
		Information Available		0-2
	b.	Missing People Underground		0-2
	с.	Actions Taken So far		0-2
	d.	Team Assignment		0-2
	e.	Route of travel		0-2
	f.	Reserve Mine Rescue Teams		0-2
	g.	Expected Conditions		0-2
	h.	Mine Rescue Equipment available		0-2
	i.	Transportation available		0-2
	j.	Location of First aid		0-2
	k.	Communication Method		0-2
	1.	Synchronize Watches		0-2
	m.	Establish Time Limits		0-2
2.	Prepai	re Emergency equipment to be used	underground	
	a.	Gas checking equipment		0-3
	b.	First Aid Supplies		0-3
	c.	Back up apparatus for team		0-5
	d.	Maps, note pad		0-5
	e.	Basket/Backboard		0-3
	f.	Casualty Breathing Apparatus		0-5
	g.	Firefighting equipment		0-5



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11. Evaluate Conditions			
	a.	Smoke	0-2
	b.	CO	0-2
	c.	Radio	0-2
12. Perform Team Check			
	d.	BG4 functioning	0-5
		Team OK	0-5
		Record info	0-5
13. Contact BO via radio a. Report Conditions b. Team Status			0-3
14. Proceed down ramp via Toyota			0-5
15. Locate unconscious Truck Operator DeLinger W Toyetk			0-20_18
16. Contact BO via Radio			
a. Report Truck operator located			0-5_5
b. Report Conditions			$ \begin{array}{c cccc} 0-5 & 5 \\ 0-3 & 3 \\ 0-2 & 2 \end{array} $
c. Time Limit			0-2 2
d. Destination			0-2 こ
e. Team Status			0-10 /0

Page | 3 of 11

World



17. Perform First Aid (Primary)	2
a. Airway	0-3_3
b. Breathing	0-3 3
c. Circulation	0-3_3
d. Gross Bleed Check	0-33
18. Protect Casualty from further contamination 3 min 15 ട്രോ ന protect യ ബ്ര മദ	0-5 <u>5</u>
19. Identify as Load and Go	0-18
OR	
Perform First Aid (Secondary)	
a. Check head, eyes, ears	0-2
b. Check neck and throat	0-2 2
c. Check arms (left and right)	0-4_4
d. Check Torso (front and Sides)	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
e. Check Pelvis	0-2 <b>2</b> 0-4 <b>4</b>
f. Check Legs and Feet (left and right)	0-4_4
g. Check Back	0-2
eyes, cars NOT CHECKED + BACK	
19. Load casualty into stretcher	0-10
	10 to



21. Contac	ct BO from FAB	
	Report Casualty turned over to F/A	0-5 5 0-3 3 0-2 2 0-2 2
	Report Toyota is no longer available	0-3_3_
c.	Time Limit	0-2_2
d.	Destination	0-2
e.	Team Status	0-10_10
No longer re	grand to proceed to surface 3	o dispetched first aid to meet
at the to	of the yortal Tean check,	time limit and dertination
campli	ete 1	
22. Travel	to Truck location via Ramp Portal	0-5_5
Ican Dro	ceeded on fact to 150 les	ve 1 3930 Uriff
23. Ensure	e Truck is safe to pass	
	Wheel Chocks	0-5_3_
	Master Switch	0-5 3
	A DESCRIPTION OF A SHARE OF A SHA	
24. Procee	ed to 3930 Sill Ore pass	0-5
25. Cauta		
25. Conta		0 3
	Report Conditions Time Limit to Build wall	0-3 0-2
	THE PROPERTY OF THE PROPERTY O	0-2
	Report Increase in Temperature Team Status	0-3
u.	Team Status	
	TOTAL SELECTION	
26. Fabric		
	Wall Completed within Time limit (20 mi	
- 7	Construction materials used are sufficien	APPENDING THE REPORT
10.0	Construction Method Sufficient	0-10
d.	Construction work evenly shared	0-10



27. Contact BO	
a. Report Conditions	0-3
b. Report Status of Wall	0-5
c. Time Limit	0-2
d. Destination	0-2
e. Team Status	0-10
28. Travel to 150 L Refuge Station	0-5
29. Contact Construction Miner	
a. Perform verbal Primary	0-5
b. Obtain info about his partner	0-5 0-5
c. Place miner in a safe location (ie Refuge Station)	0-10
30. Contact BO	
a. Report Conditions	0-3
b. Report Status of Construction Miner	0-5
c. Time Limit	0-2
d. Destination	0-2
e. Team Status	0-10
31. Travel to RV ramp via 4210 Spur X-over	0-5
32. Locate Injured Construction miner at DS7	0-20



33. Contact BO via Radio	
a. Report Construction Miner located	0-5
b. Report Conditions	0-3
c. Time Limit	0-2
d. Destination	0-2
e. Team Status	0-10
34. Ensure Scoop is safe	
a. Wheel Chocks	0-5
b. Master Switch	0-5
35. Perform First Aid (Primary)	0-3
f. Airway g. Breathing	0-3
h. Circulation	0-3
i. Gross Bleed Check	0-3
i. Gloss bleed check	
THE PARTY SHEET OF THE PARTY SHEET	Aug met un mit dans
36. Apply oxygen to casualty	0-5
37. Identify as Load and Go	0 – 18
OR	
38. Perform First Aid (Secondary)	0.3
j. Check head, eyes, ears	0-2
k. Check neck and throat	0-2
I. Check arms (left and right)	0-4
<ul><li>m. Check Torso (front and Sides)</li><li>n. Check Pelvis</li></ul>	0-2
	-A
Revised: May 2016 Page   7 of 11	Workplace Safety North

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0.	Check Legs and Feet (left and right)	0-4
p.	Check Back	0-2
10		
9. First A	id Treatment	
c.	Put on medical gloves	0-5
d.	Support Casualty in position found	0 – 20
	Control bleeding	0-10
	Support Embedded object in position found	0-5
Ω Locate	e rescue tools (eDraulics)	0-10
1. Ensur	e tools are safe to use	0-5
12. Cut C	asualty Free	0-10
	-Once Casualty is cut free	
g.	Place casualty on their side in the basket	0-20
ĥ.	Recheck vitals	0-5
i.	Evacuate casualty to surface	0-20
7 777.5		

Workplace Safety North-



3. Contact BO	
a. Report Casualty turned over to F/A	0-5
b. Time Limit	0-2
c. Destination	0-2
d. Team Status	0-10
4. Get Team out of O <sub>2</sub>	0-10
Miscellaneous:	
	Demerit
Extreme unsafe action:	Max (-25)
	re rolles son rate
Name of the second	
Extreme poor casualty Care:	Max (-20 per casualty)
CANADI	X 2016
Damage to Mine Rescue Equipment:	Max (-5 per item)



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Team Number	THE CONTRACTOR AND THE CONTRACTOR OF THE CONTRAC			
1	Canada 2	Vale Manitoba Operations	I	
2	Canada 2	Sudbury Basin Cobras, KGHM		
3	Canada 2	Vale Sudbury West Mines	$\perp$	
4	USA	MSHA Mine Emergency Unit No.1	$\Box$	
	— Break —	Break	$\perp$	
5	Russia	EMERCOM	$\prod$	
6	Russia	JSC SUEK	$\Box$	
7	tndia	Singareni		
8	India	Coal India Ltd.	$\Box$	
9	Vietnam	Vinacomin	┙	
10	Slovakia	HBP	$\Box$	
11	Australia	Peabody Energy Wambo Coal	$\Box$	
12	Multinational	Goldcorp Americas	$\Box$	
13	Canada 1	Agnico Eagle Goldex Mine	$\Box$	
	Break	Break		
14	Canada 1	Compass Minerals Goderich Mine		
15	Canada 1	Cameco McArthur River		
16	Canada 1	Kirkland Lake Gold		
17	Columbia	Colombia Coal Company		
18	Columbia	Flebre del Oro (Gold Fever)	┙	
19	Ukraine	State Militarized Mine Rescue Squad		
20	China	Guizhou Yonggui Energy Company		
21	China	China Pingmei Senma Group	$\perp$	
22	China	Shaanxi Coal and Chemical Group		
	Break	Break		
23	Poland	Bytom Weglokoks		
24	Poland	Scorpions Team Katowice		
25	Poland	Gray Wolfs		
26	Poland	KGHM White Eagles		
27	treland	Boliden Tara Mines		



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the state of the s	Problem - 22 Casualty at F/A
Mike Johnson	MERITS
Team to be briefed by Briefing Officer	0-5
a. Information Available	0-2
b. Missing People Underground	0-2
c. Actions Taken So far	0-2
d. Team Assignment	0-2
e. Route of travel	0-2
f. Reserve Mine Rescue Teams	0-2
g. Expected Conditions	0-2
h. Mine Rescue Equipment available	0-2
i. Transportation available	0-2
j. Location of First aid	0-2
k. Communication Method	0-2
I. Synchronize Watches	0-2
m. Establish Time Limits	0-2
2. Prepare Emergency equipment to be used underg	(1.3.1) (1.3.1) (1.3.1) (1.3.1) (1.3.1) (1.3.1) (1.3.1) (1.3.1) (1.3.1) (1.3.1) (1.3.1)
a. Gas checking equipment	0-3
b. First Aid Supplies	0-3
c. Back up apparatus for team	0-5
d. Maps, note pad	0-5
e. Basket/Backboard	0-3
f. Casualty Breathing Apparatus	0-5
g. Firefighting equipment	0-5



3.	Prepare team breathing apparatuses  a. Perform high pressure leak test  b. Install Ice  c. Anti fog mask	0-10 0-5 0-5
4.	Team under oxygen outside of Fresh Air Base	0 – 10
5.	Verify breathing apparatus is functioning properly	0-10
6.	Ensure Toyota operator is wearing breathing apparatus	0-5
7.	Contact BO  a. Time Limit b. Destination	0-2 0-2
8.	c. Time Team under 0 <sub>2</sub> Board Toyota in a safe manner	0-2
	Enter mine via Portal	0-5_5
	). Stop inside of nortal	0-5_5
10	D. Stop inside of portal	0

11. Evaluate Conditions



	a.	Smoke	0-2_ 0-2_ 0-2_	2
	b.	CO	0-2_	2
	c.	Radio	0-2_	~
12. Perform Team Check				
	d.	BG4 functioning	0-5_	
	e.	Team OK	0-5_	2
	f.	BG4 functioning Team OK Record info	0-5_	2
AFILIO ESTASIBILES	ASSET N			
13. Contact BO via radio				_
a. Report Conditions			0-3 <sub>-</sub> 0-2 <sub>-</sub>	3
b. Team Status	"ENGLAN		0-2_	2
14. Proceed down ramp via Toyota			0-5_	5
	INGS IP			
15. Locate unconscious Truck Operator			0 - 20 _	

16. Contact BO via Radio

- a. Report Truck operator located
- b. Report Conditions
- c. Time Limit
- d. Destination
- e. Team Status

- 0-5\_\_\_\_
- 0-3\_\_\_\_\_
- 0-2\_\_\_\_\_
- 0-2\_\_\_\_
- 0-10\_\_\_\_



17. Perform First Aid (Primary)	
a. Airway	0-3
b. Breathing	0-3
c. Circulation	0-3
d. Gross Bleed Check	0-3
18. Protect Casualty from further contamination	0-5
19. Identify as Load and Go	0-18
OR	
Perform First Aid (Secondary)	
a. Check head, eyes, ears	0-2
b. Check neck and throat	0-2
c. Check arms (left and right)	0-4
d. Check Torso (front and Sides)	0-2
e. Check Pelvis	0-2
f. Check Legs and Feet (left and right)	0-4
g. Check Back	0-2
19. Load casualty into stretcher	0-10
20. Transport Casualty to First Aid (surface)	0-10



ZI, COIIIa	ct BO from FAB	
a.	Report Casualty turned over to F/A	0-5
b.	Report Toyota is no longer available	0-3
C.	Time Limit	0-2
d.	Destination	0-2
e.	Team Status	0-10
22. Travel	to Truck location via Ramp Portal	0-5
22 5		
	e Truck is safe to pass  Wheel Chocks	0. 5
		0-5 0-5
D.	Master Switch	
24. Proce	ed to 3930 Sill Ore pass	0-5
25. Conta	ct BO	
25. Conta a.		0-3
a.	ct BO Report Conditions Time Limit to Build wall	0 – 3 <u> </u>
a. b.	Report Conditions Time Limit to Build wall	0-2
a. b. c.	Report Conditions	0-2 0-3
a. b. c.	Report Conditions Time Limit to Build wall Report Increase in Temperature	0-2 0-3
a. b. c.	Report Conditions Time Limit to Build wall Report Increase in Temperature Team Status	0-2 0-3
a. b. c. d. 26. Fabric a.	Report Conditions Time Limit to Build wall Report Increase in Temperature Team Status  ate Wall Wall Completed within Time limit (20 min)	0-20-30-10
a. b. c. d. 26. Fabric a.	Report Conditions Time Limit to Build wall Report Increase in Temperature Team Status ate Wall	0-2 0-3 0-10 0-10
a. b. c. d. 26. Fabric a.	Report Conditions Time Limit to Build wall Report Increase in Temperature Team Status  ate Wall Wall Completed within Time limit (20 min) Construction materials used are sufficient	Change College Printer College



17 C4-	H PO	
27. Conta		0 1
	Report Conditions	0-3
	Report Status of Wall	0-5
	Time Limit	0-2
	Destination Trans Status	0-2
e.	Team Status	0 – 10
28. Travel	to 150 L Refuge Station	0-5
		HI ALX
29. Conta	ct Construction Miner	
	Perform verbal Primary	0-5
	Obtain info about his partner	0-5
	Place miner in a safe location (ie Refuge Station)	0-10
30. Conta		
	Report Conditions	0-3
	Report Status of Construction Miner	0-5
	Time Limit	0-2
	Destination	0-2
e.	Team Status	0-10
31. Trave	to RV ramp via 4210 Spur X-over	0-5
	NOT THE REST OF THE REST OF THE PARTY OF THE	5 N W



33. Contact BO via Radio	
a. Report Construction Miner located	0-5
b. Report Conditions	0-3
c. Time Limit	0-2
d. Destination	0-2
e. Team Status	0-10
34. Ensure Scoop is safe	
a. Wheel Chocks	0-5
b. Master Switch	0-5
35. Perform First Aid (Primary)	
f. Airway	0-3
g. Breathing	0-3
h. Circulation	0-3
i. Gross Bleed Check	0-3
36. Apply oxygen to casualty	0-5
37. Identify as Load and Go	0-18
OR	
38. Perform First Aid (Secondary)	
j. Check head, eyes, ears	0-2
k. Check neck and throat	0-2
Check arms (left and right)	0-4
m. Check Torso (front and Sides)	0-2
n. Check Pelvis	0-2



o. Check Legs and Feet (left and right)	0-4
p. Check Back	0-2
9. First Aid Treatment	
c. Put on medical gloves	0-5
d. Support Casualty in position found	0 – 20
e. Control bleeding	0-10
f. Support Embedded object in position found	0-5
0. Locate rescue tools (eDraulics)	0-10
1. Ensure tools are safe to use	0-5
2. Cut Casualty Free	0-10
Once Casualty is cut free	
g. Place casualty on their side in the basket	0-20
h. Recheck vitals	0-5
i. Evacuate casualty to surface	0-20
	64

Workplace Safety North=



<ul><li>a. Report Casualty turned over to F/A</li><li>b. Time Limit</li><li>c. Destination</li></ul>	0-5 0-2 0-2
d. Team Status	0-10
4. Get Team out of O₂	0-10
Miscellaneous:	Demerit:
Extreme unsafe action:	Max (-25)
Extreme poor casualty Care:	Max (-20 per casualty)
	T 0010
Damage to Mine Rescue Equipment:	Max (-5 per item)



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Team Number	Tuesday Au	gust 23rd, 2016
1	Canada 2	Vale Manitoba Operations
2	Canada 2	Sudbury Basin Cobras, KGHM
3	Canada 2	Vale Sudbury West Mines
4	USA	MSHA Mine Emergency Unit No.1
	Break	Break
5	Russia	EMERCOM
6	Russia	JSC SUEK
7	India	Singareni
8	India	Coal India Ltd.
9	Vietnam	Vinacomin
10	Slovakia	HBP
11	Australia	Peabody Energy Wambo Coal
12	Multinational	Goldcorp Americas
13	Canada 1	Agnico Eagle Goldex Mine
	Break	8reak
14	Canada 1	Compass Minerals Goderich Mine
15	Canada 1	Cameco McArthur River
16	Canada 1	Kirkland Lake Gold
17	Columbia	Colombia Coal Company
18	Columbia	Fiebre del Oro (Gald Fever)
19	Ukraine	State Militarized Mine Rescue Squad
20	China	Guizhou Yonggui Energy Company
21	China	China Pingmei Senma Group
22	China	Shaanxi Coal and Chemical Group
	— Break —	Break
23	Poland	Bytom Weglokoks
24	Poland	Scorpions Team Katowice
25	Poland	Gray Wolfs
26	Poland	KGHM White Eagles
27	treland	Boliden Tara Mines

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TEAM: Time Un	KGHM oder 02 18:04	Time Casualty at F/A	ARED SINCE
			MERITS
1. 7	Team to be briefed by Briefing Officer  a. Information Available b. Missing People Underground c. Actions Taken So far d. Team Assignment e. Route of travel f. Reserve Mine Rescue Teams g. Expected Conditions h. Mine Rescue Equipment available i. Transportation available j. Location of First aid k. Communication Method l. Synchronize Watches m. Establish Time Limits		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
2. F	Prepare Emergency equipment to be used a. Gas checking equipment b. First Aid Supplies c. Back up apparatus for team d. Maps, note pad e. Basket/Backboard f. Casualty Breathing Apparatus g. Firefighting equipment	underground	0-3 3 0-3 3 0-5 3 0-5 3 0-5 3 0-5 3



_	_			
3.	Prepare	team	breathing	apparatuses

- a. Perform high pressure leak test
- b. Install Ice
- c. Anti fog mask

0-10_	10	
0-5_	5	
0-5_	5	_/_
		<b>-</b> /20

4.	Team under	oxveen	outside	of	Fresh	Air	Base
╼.	i com anaci	OVAREII	Ontaine	VI.	115211	$\sim$	D026

- a. Time Limit
- b. Destination
- c. Time Team under 02

0-2 >

#### 8. Board Toyota in a safe manner

9. Enter mine via Portal

10. Stop inside of portal







11. Evaluate Conditions			
		Smoke	0-2
	b.	CO	0-2
	C.	Radio	0-2
	1925		197
12. Perform Team Check			
	d.	BG4 functioning	0 – 5
	e.	Team OK	0 – 5
	f.	Record info	0-5
13. Contact BO via radio			
a. Report Conditions			0-3
b. Team Status			0-3 0-2
14. Proceed down ramp via Toyota			0 - 5
			104-8C
15. Locate unconscious Truck Operator			0 - 20
16. Contact BO via Radio			
a. Report Truck operator located			0-5
b. Report Conditions			0-3
c. Time Limit			0-2
d. Destination			0 – 2
e. Team Status			0 - 10



17. Perform First Aid (Primary)	
a. Airway	0-3
b. Breathing	0-3
c. Circulation	0-3
d. Gross Bleed Check	0-3
18. Protect Casualty from further contamination	0-5
19. Identify as Load and Go	0-18
OR	
Perform First Aid (Secondary)	
a. Check head, eyes, ears	0-2
b. Check neck and throat	0-2
c. Check arms (left and right)	0-4
d. Check Torso (front and Sides)	0-2
e. Check Pelvis	0-2
f. Check Legs and Feet (left and right)	0-4
g. Check Back	0-2
19. Load casualty into stretcher	0-10
20. Transport Casualty to First Aid (surface)	0-10



21. Conta	ct BO from FAB			
a.	Report Casualty turned over to F/A	0-5		
b.	Report Toyota is no longer available	0-3		
c.	Time Limit	0-2 0-2		
d.	Destination			
e.	Team Status	0-10		
22. Travel	to Truck location via Ramp Portal	0-5		
23. Ensure	Truck is safe to pass			
a.	Wheel Chocks	0-5		
b.	Master Switch	0-5		
24. Proce	ed to 3930 Sill Ore pass	0-5		
24. Proce	ed to 3930 Sill Ore pass	0-5		
24. Proce 25. Conta		0-5		
25. Conta		0-5		
25. Conta a.	ct BO			
25. Conta a. b.	ct BO Report Conditions	0-3 0-2 0-3		
25. Conta a. b. c.	ct BO Report Conditions Time Limit to Build wall	0-3 0-2 0-3		
25. Conta a. b. c.	ct BO  Report Conditions  Time Limit to Build wall  Report Increase in Temperature  Team Status	0-3 0-2 0-3		
25. Conta a. b. c. d.	ct BO  Report Conditions  Time Limit to Build wall  Report Increase in Temperature  Team Status	0-3 0-2 0-3 0-10		
25. Conta a. b. c. d.	ct BO Report Conditions Time Limit to Build wall Report Increase in Temperature Team Status	0-3 0-2 0-3 0-3 0-10		
25. Conta a. b. c. d. 26. Fabric a. b.	ct BO Report Conditions Time Limit to Build wall Report Increase in Temperature Team Status  ate Wall Wall Completed within Time limit (20 min)	0-3		



27. Conta	ct RO	
<del>-</del>	Report Conditions	0-3
	Report Status of Wall	0-5
	Time Limit	0-2
	Destination	0-2
	Team Status	0-10
28. Travel	to 150 L Refuge Station	0-5
		a nepunside
29. Conta	ct Construction Miner	
a.	Perform verbal Primary	0-5
	Obtain info about his partner	0-5 0-5
	Place miner in a safe location (ie Refuge Station)	0-10
11		
30. Conta	ct BO	
	Report Conditions	0-3
	Report Status of Construction Miner	0-5
	Time Limit	0-2
d.	Destination	0-2
e.	Team Status	0-10
31. Trave	to RV ramp via 4210 Spur X-over	0-5
£i.	7 - 24 The 24 E To 25 24	



33. Conta	ct BO via Radio		
a.	<b>Report Construction Mine</b>	rlocated	0-5
	Report Conditions		0-3
	Time Limit	0-2	
d.	Destination		0-2
e.	Team Status		0-10
34. Ensur	e Scoop is safe		
a.	Wheel Chocks		0-5
b.	Master Switch		0-5
35. Perfor	m First Aid (Primary)		
f.	Airway		0-3
g.	Breathing		0-3
h.	Circulation		0-3
i.	Gross Bleed Check		0-3
36. Apply	oxygen to casualty		0-5
	Sala Transita		
37. Identi	fy as Load and Go		0-18
		OR	
38 Darfo	rm First Aid (Secondary)		
	Check head, eyes, ears		0=2
	Check neck and throat		0-2
l.	Check arms (left and right)	LULL	0-4
•••	. Check Torso (front and Sid		0-2
	Check Pelvis		0-2
			4
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Revised: May 2016



Ų.	Check Legs and Feet (left and right)	0-4
p.	Check Back	0-2
		Will Alex
39. First /	Aid Treatment	
c.	Put on medical gloves	0-5
	Support Casualty in position found	0 – 20
	Control bleeding	0-10
	Support Embedded object in position found	0-5
40. Locat	e rescue tools (eDraulics)	0-10
41. Ensur	re tools are safe to use	0-5
12 Cut C	asualty Free	0-10
TEI CUI C	abunity 1166	
	Once Casualty is cut free	
	Office Casualty is cut free	
g.	Place casualty on their side in the basket	0-20
_	Recheck vitals	0-5
	Evacuate casualty to surface	0-20
i.	Library condition	

CANADA 2016



a. Report Casualty turned over to F/A	0-5
b. Time Limit	0-2
c. Destination	0-2
d. Team Status	0-10
4. Get Team out of O₂	0-10
Miscellaneous:	
	Demerit:
Extreme unsafe action:	Max (-25)
Extreme poor casualty Care:	Max (-20 per casualty)
Damage to Mine Rescue Equipment:	Max (-5 per item)



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Team Number	Tuesday August 23rd, 2016		
1	Canada 2	Vale Manitoba Operations	
2	Canada 2	Sudbury Basin Cobras, KGHM	
3	Canada 2	Vale Sudbury West Mines	
4	USA	MSHA Mine Emergency Unit No.1	
	— Break —	Break	
5	Russia	EMERCOM	
6	Russia	JSC SUEK	
7	India	Singareni	
8	Indîa	Coal India Ltd.	
9	Vietnam	Vinacomin	
10	Slovakia	нар	
11	Australia	Peabody Energy Wambo Coal	
12	Multinational	Goldcorp Americas	
13	Canada 1	Agnico Eagle Goldex Mine	
	— Break —	Break	
14	Canada 1	Compass Minerals Goderich Mine	
15	Canada 1	Carneco McArthur River	
16	Canada 1	Kirkland Lake Gold	
17	Calumbia	Colombia Coal Company	
18	Columbia	Fiebre del Oro (Gold Fever)	
19	Ultraine	State Militarized Mine Rescue Squad	
20	China	Guizhou Yonggui Energy Company	
21	China	China Pingmei Senma Group	
22	China	Shaarxi Coal and Chemical Group	
	Break	Break	
23	Poland	Bytom Weglakoks	
24	Poland	Scorpions Team Katowice	
25	Poland	Gray Wolfs	
26	Poland	KGHM White Eagles	
27	treland	Boliden Tara Mines	

# U/G SCENARIO TEAM: KGHOP)



Time Under O<sub>2</sub> 19.04

Time Casualty at F/A

		MERIT
1 Team	to be briefed by Briefing Officer	0-5 5
	Information Available	0-5 <u>5</u> 0-2 <u>2</u>
	Missing People Underground	0-2 2
	Actions Taken So far	0-2 2
	Team Assignment	0-2 2
	Route of travel	0-2 2
	Reserve Mine Rescue Teams	0-2 2
•	Expected Conditions	0-2 <u>2</u> 0-2 <u>2</u>
_	Mine Rescue Equipment available	0-2 3
i.	Transportation available	0-2
j.	Location of First aid	0-2 2
k.	Communication Method	0-2 0-2
1.	Synchronize Watches	0-2
m.	Establish Time Limits	0-2_2
•	re Emergency equipment to be used underground	
	Gas checking equipment	0-3_3
	First Aid Supplies	0-33
	Back up apparatus for team	0-5_5
	Maps, note pad	0-5
	Basket/Backboard	0-3 <u>3</u> 0-5 <u>\$</u>
f.	Casualty Breathing Apparatus	
g.	Firefighting equipment	0-55
6		
q	COLLEGE DE LE LA CA	UAU



3.	Prepare	team	breathing	apparatuses
----	---------	------	-----------	-------------

- a. Perform high pressure leak test
- b. Install Ice
- c. Anti fog mask

$$\begin{array}{c|cccc}
0 - 10 & & & & & & & & \\
0 - 5 & & & & & & & \\
\hline
0 - 5 & & & & & & & \\
\end{array}$$

4.	Team	under	oxygen	outside	of	Fresh	Air	Base
----	------	-------	--------	---------	----	-------	-----	------

5. Verify breathing apparatus is functioning properly

6. Ensure Toyota operator is wearing breathing apparatus

1 – 5	8
, ,	

#### 7. Contact BO

a. Time Limitb. Destination

0-2\_\_\_\_

c. Time Team under 02

0-2\_\_\_\_

8. Board Toyota in a safe manner

0-5\_5

9. Enter mine via Portal

10. Stop inside of portal

0-5 \_\_\_\_



11. Evalua	te Conditions			
			Smoke	0-2
			CO	0-2
		C.	Radio	0-2
12. Perfoi	rm Team Check			
			BG4 functioning	0-5
		e.	Team OK	0 – 5
		f.	Record info	0-5
13 Contac	ct BO via radio			
	Report Conditions			0-3
	Team Status			0-2
		41197		
14. Procee	ed down ramp via Toyota			0 - 5
15 Locate	unconscious Truck Operator			0 - 20
15. LUCALE	e unconscious Truck Operator			0-20
16. Conta	ct BO via Radio			
a.	Report Truck operator located			0-5
b.	Report Conditions			0-3
C.	Time Limit			0-2
d.	Destination			0-2
e.	Team Status			0-10



L7. Perfor	m First Aid (Primary)	
a.	Airway	0-3
b.	Breathing	0-3
c.	Circulation	0-3
d.	Gross Bleed Check	0-3
L8. Protec	t Casualty from further contamination	0-5
		7
19. Identil	y as Load and Go	0-18
	OR	
Perfor	m First Aid (Secondary)	
a.	Check head, eyes, ears	0-2
b.	Check neck and throat	0-2
c.	Check arms (left and right)	0-4
d.	Check Torso (front and Sides)	0-2
e.	Check Pelvis	0-2
f.	Check Legs and Feet (left and right)	0-4
g.	Check Back	0-2
19. Load c	asualty into stretcher	0-10
 20. Transp	ort Casualty to First Aid (surface)	0-10



21. Contact BO from	n FAB	
a. Report (	Casualty turned over to F/A	0-5
b. Report 1	Toyota is no longer available	0-3
c. Time Lin	nit	0-2
d. Destinat	ion	0-2
e. Team St	atus	0-10
22. Travel to Truck	location via Ramp Portal	0-5
3		
23. Ensure Truck is		
a. Wheel C	Chocks	0-5
b. Master :	Switch	0-5
	Z. Zanistov	
24. Proceed to 393	O Sill Ore pass	0-5
rs-rs-rs		
25. Contact BO		
a. Report (	Conditions	0-3
	nit to Build wall	0-3
	ncrease in Temperature	0-3
d. Team St	THE PARTY OF THE P	0-10
	Automorphisms State Access to	
26. Fabricate Wall		
	malated within Time limit /20 min	0 - 20
	mpleted within Time limit (20 min) ction materials used are sufficient	0 - 20 0 - 10
	ction Method Sufficient	0-10
45 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A	ction work evenly shared	0-10
u. Constitu	COON WOLK EVEILIN SHOLEG	0-10



27. Conta	ct BO	
a.	Report Conditions	0-3
	Report Status of Wall	0-5
c.	Time Limit	0-2
d.	Destination	0 – 2
e.	Team Status	0-10
	ASTRONOM CONTRACTOR	<del></del>
O Traccal	to 1501 Refuse Station	0 5
ıs. Trave	to 150 L Refuge Station	0-5
99. Conta	ct Construction Miner	
	Perform verbal Primary	0-5
	Obtain info about his partner	0-5
	Place miner in a safe location (ie Refuge Station)	0-10
30. Conta	ct BO	
	Report Conditions	0-3
	Report Status of Construction Miner	0-5
	Time Limit	0-2
d.	Destination	0-2
e.	Team Status	0-10
31. Trave	l to RV ramp via 4210 Spur X-over	0-5
6	TANADA DE	TA



33. Contac	t BO via Radio		
	Report Construction Miner	r located 0 – 5	
	Report Conditions	0-3	
	Time Limit	0-2	
d.	Destination	0-2	
е.	Team Status	0-10_	
34. Ensure	Scoop is safe		
a.	Wheel Chocks	0-5	
b.	Master Switch	0-5	
			70000 00 -
35. Perfor	m First Aid (Primary)		
	Airway	0-3	
	Breathing		
_	Circulation		
i.	Gross Bleed Check		
	omprotosamuse 1		
36. Apply	oxygen to casualty	0-5_	
37. Identii	fy as Load and Go	0-18_	
		OR	
38. Perfor	m First Aid (Secondary)		
	Check head, eyes, ears	0-2_	
k.	Check neck and throat	0-2_	
l.	Check arms (left and right)		
	Check Torso (front and Sid		
n.	Check Pelvis	0-2	
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0.	Check Legs and Feet (left and right)	0-4
p.	Check Back	0-2
9. First A	Aid Treatment	
c.	Put on medical gloves	0-5
d.	Support Casualty in position found	0 – 20
e.	Control bleeding	0-10
f.	Support Embedded object in position found	0-5
ιΩ. Locati	e rescue tools (eDraulics)	0-10
l1 Fnsur	e tools are safe to use	0-5_
42. Cut C	asualty Free	0-10
	Once Casualty is cut free	
ø.	Place casualty on their side in the basket	0-20
_	Recheck vitals	0-5
	Evacuate casualty to surface	0 – 20
		(#8000 PET)
	<u> </u>	70.000

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a. Report Casualty turned over to F/A b. Time Limit c. Destination d. Team Status	0-5 0-2 0-2 0-10
4. Get Team out of O₂	0-10
Miscellaneous:	
Extreme unsafe action:	Demerit: Max (-25)
Extreme poor casualty Care:	Max (-20 per casualty)
Damage to Mine Rescue Equipment:	Max (-5 per item)



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Team Number	I I DIGERAL ANGLIET / SER / JULA			
1	Canada 2	Vale Manitoba Operations		
2	Canada 2	Sudbury Basin Cobras, KGHM		
3	Canada 2	Vale Sudbury West Mines		
4	USA	MSHA Mine Emergency Unit No.1		
	Break	8reak		
5	Russia	EMERCOM		
6	Russia	JSC SUEK		
7	India	Singareni		
8	India	Coal India Ltd.		
9	Vietnam	Vinacomin		
10	Slovakia	НВР		
11	Australia	Peabody Energy Wambo Coal		
12	Multinational	Goldcorp Americas		
13	Canada 1	Agnico Eagle Goldex Mine		
	— Break —	Break		
14	Canada 1	Compass Minerals Goderich Mine		
15	Canada 1	Carneco McArthur River		
16	Canada 1	Kirkland Lake Gold		
17	Columbia	Colombia Coal Company		
18	Columbia	Fiebre del Oro (Gald Fever)		
19	Ukraine	State Militarized Mine Rescue Squad		
20	China	Guizhou Yonggui Energy Company		
21	China	China Pingmei Senma Group		
22	China	Shaanxi Coal and Chemical Group		
	— Break —	Break		
23	Poland	Bytom Weglokoks		
24	Poland	Scorpions Team Katowice		
25	Poland	Gray Wolfs		
26	Poland	KGHM White Eagles		
27	treland	Boliden Tara Mines		

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Time U	nder O		Time Casualty at F/A		
IIIIIE O	nuei C		Time casualty at 17A	ANY	
		die site V site s		M	IERITS
1	Toam	to be briefed by Briefing Officer		0-5	
1.		Information Available		0-2	
		Missing People Underground		0-2	
		Actions Taken So far		0-2	
		Team Assignment		0-2	
		Route of travel		0-2	
		Reserve Mine Rescue Teams		0-2	
	g.	Expected Conditions		0-2	
	_	Mine Rescue Equipment available		0-2	
		Transportation available		0-2	
	j.	Location of First aid		0-2	
	k.	Communication Method		0-2	
	1.	Synchronize Watches		0-2	
	m.	Establish Time Limits		0-2	
				IN III	
	_				
4		elepholism, and	paskerand gra		<u> </u>
2.	•	re Emergency equipment to be used	underground		
150		Gas checking equipment		0-3	
	b.	First Aid Supplies		0-3	
	C.	Back up apparatus for team		0-5	
	d.	Maps, note pad		0-5	
	e.	Basket/Backboard		0-3	
	f.	Casualty Breathing Apparatus		0-5	
	g.	Firefighting equipment		0-5	



0 – 10
0-5
0-5
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0-2
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0-2
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A STATE OF THE STA
0 – 5
0 - 5



11. Evaluate Conditions			
	a.	Smoke	0-2
	b.	CO	0-2
	c.	Radio	0-2
	mymmyr (f. yny gr sh	More -56-1-of MSS-71	7
12. Perform Team Check			
			g 0-5
		Team OK	·
	f.	Record info	0-5
13. Contact BO via radio		PARTY	
a. Report Conditions			0-3
b. Team Status			0-2
14. Proceed down ramp via Toyota			0-5
	HEP.		
15. Locate unconscious Truck Operator  To nuch Ting To locat  THE TERM STRY IN TO	1	21:1	0-20 18
THE TEAM STAY IN TI	42	Toyota 1	· nuch. Tim
16. Contact BO via Radio			<b>7</b>
a. Report Truck operator located			0-5 <u> </u>
b. Report Conditions			0-3_3_
c. Time Limit			0-2 0 2
d. Destination			0-2_2
e. Team Status			0-10 <u>//</u>



17. Perform First Aid (Primary)	
a. Airway	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
b. Breathing	0-3_3
c. Circulation	0-3_3
d. Gross Bleed Check	0-3_3
18. Protect Casualty from further contamination	0-5_5
19. Identify as Load and Go	0-18 مند ـ
OR	
Perform First Aid (Secondary)	
a. Check head, eyes, ears	0-2_/
b. Check neck and throat	0-2 <u>2</u>
c. Check arms (left and right)	0-4_4
d. Check Torso (front and Sides)	0-2_1
e. Check Pelvis	0-2_2
f. Check Legs and Feet (left and right)	0-2 / 0-2 z 0-4 4/ 0-2 z 0-2 z 0-2 z 0-4 4/
g. Check Back	0-2_0_
port effect xyEs - EILS.	
19. Load casualty into stretcher	0-10_/0
2 Mar only To lift To pet To	HE buys
OF THE STARTCHER.	
20. Transport Casualty to First Aid (surface)	0-10 /0



21. Contact BO from FAB	_
a. Report Casualty turned over to F/A	0-5_5
b. Report Toyota is no longer available	0-5 5 0-3 3 0-2 2 0-2 2
c. Time Limit	0-2
d. Destination	0-2
e. Team Status	0-10
No longer required to return to surface, toon	· ·
Team Check, time limit and destination	condite.
22. Travel to Truck location via Ramp Portal	0-5_5_
Tean priceeded on East down to	150 level 300 Drift
23. Ensure Truck is safe to pass	
a. Wheel Chocks	0-5
b. Master Switch	0-5
24. Proceed to 3930 Sill Ore pass	0-5
24. Troceed to 3330 3iii Gre pass	
(KULTUR HE DAN AND ) F CHARM THE F	religa enteriores establismos
25. Contact BO	
a. Report Conditions	0-3
b. Time Limit to Build wall	0-2
c. Report Increase in Temperature	0-3
d. Team Status	0-10
	himiter'
26 Februarta Miall	
26. Fabricate Wall	0.30
<ul> <li>a. Wall Completed within Time limit (20 min)</li> <li>b. Construction materials used are sufficient</li> </ul>	0-20
c. Construction Materials used are sufficient	0-10 0-10
d. Construction work evenly shared	0-10
d ( Obstruction Wary avanily shared	Williams And Add and the country of



eport Conditions eport Status of Wall me Limit estination eam Status	0-3 0-5 0-2 0-2 0-10
eport Status of Wall me Limit estination	0-5 0-2 0-2
me Limit estination	0-2 0-2
	0-2
eam Status	0-10
	Fig.
150 L Refuge Station	0-5
	0-5
ace miner in a safe location (ie Refuge Station)	0-10
30	
	0-3
	0-5
	0-2
	0-2
eam Status	0-10
RV ramp via 4210 Spur X-over	0-5
Edition	Construction Miner erform verbal Primary Obtain info about his partner (lace miner in a safe location (ie Refuge Station)  BO Report Conditions Report Status of Construction Miner Time Limit Destination Team Status  O RV ramp via 4210 Spur X-over



33. Contact BO via Radio  a. Report Construction Miner b. Report Conditions c. Time Limit d. Destination	0-5 0-3 0-2 0-10
e. Team Status	0-10
34. Ensure Scoop is safe a. Wheel Chocks b. Master Switch	0-5 0-5
35. Perform First Aid (Primary)	
f. Airway	0-3
g. Breathing	0-3
h. Circulation	0-3
i. Gross Bleed Check	0-3
36. Apply oxygen to casualty	0-5
37. Identify as Load and Go	0-18
	OR
38. Perform First Aid (Secondary) j. Check head, eyes, ears k. Check neck and throat l. Check arms (left and right) m. Check Torso (front and Sid	•
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<ul> <li>check Legs and Feet (left and right)</li> </ul>	0-4
p. Check Back	0-2
39. First Aid Treatment	
c. Put on medical gloves	0-5
d. Support Casualty in position found	0-20
e. Control bleeding	0-10
f. Support Embedded object in position found	0-5
40. Locate rescue tools (eDraulics)	0-10
40. Locate rescue tools (ebraulies)	0-10
A STANDARD CONTRACT TO THE STANDARD	
41. Ensure tools are safe to use	0-5
I DANSE RECEIVED TO THE RESERVED TO THE PROPERTY OF THE PROPER	
42. Cut Casualty Free	0-10
Once Casualty is cut free	
g. Place casualty on their side in the basket	0 – 20
h. Recheck vitals	0-5
i. Evacuate casualty to surface	0-3
i. Evacuate casualty to surface	0-20
	-335578392570565-5550-5556

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3. Contact BO	
a. Report Casualty turned over to F/A	0-5
b. Time Limit	0-2
c. Destination	0-2
d. Team Status	0-10
4. Get Team out of O <sub>2</sub>	0-10
Miscellaneous:	
	Demerit:
Extreme unsafe action:	Max (-25)
Extreme poor casualty Care:	Max (-20 per casualty)
CARTATA	T OATC
Damage to Mine Rescue Equipment:	Max (-5 per item)



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Team Number	Tuesday Au	gust 23rd, 2016
1	Canada 2	Vale Manitoba Operations
2	Canada 2	Sudbury Basin Cobras, KGHM
3	Canada 2	Vale Sudbury West Mines
4	USA	MSHA Mine Emergency Unit No.1
	— Break —	Break
5	Russia	EMERCOM
6	Russia	JSC SUEK
7	tndia	Singareni
8	India	Coal India Ltd.
9	Vietnam	Vinacomin
10	Slovakia	H8P
11	Australia	Peabody Energy Warnbo Coal
12	Multinational	Goldcorp Americas
13	Canada 1	Agnico Eagle Goldex Mine
1	— Break —	Break
14	Canada 1	Compass Minerals Goderich Mine
15	Canada 1	Cameco McArthur River
16	Canada 1	Kirkland Lake Gold
17	Columbia	Colombia Coal Company
18	Columbia	Fiebre del Oro (Gold Fever)
19	Ukraine	State Militarized Mine Rescue Squad
20	China	Guizhou Yonggui Energy Company
21	China	China Pingmei Senma Group
22	China	Shaanxi Coal and Chemical Group
	Break	Break
23	Poland	Bytom Weglokoks
24	Poland	Scorpions Team Katowice
25	Poland	Gray Wolfs
26	Poland	KGHM White Eagles
27	treland	Boliden Tara Mines

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Time Ur	nder O <sub>2</sub> Time Casualty at F/A	
		Allon C
16 de	- destr.  pece for lum histogran hand  Team to be briefed by Briefing Officer stretche.	MERIT
16 de	nece for lun hithy on hand	+ side
on 1	Team to be briefed by Briefing Officer	0-5
	a. Information Available	0-2
	b. Missing People Underground	0-2
	c. Actions Taken So far 1106 word cas 1-	
	d. Team Assignment	0-2
	d. Team Assignment e. Route of travel  f. Passaya Mina Passaya Tagma	0-2
		0-2
	g. Expected Conditions head shouped to	0-2
	h. Mine Rescue Equipment available V	0-2
	i. Transportation available locks.	0-2
	j. Location of First aid k. Communication Method 6189 - Shelm The	0-2
	k. Communication Method 6 - Sharing 1848	0-2
	1. Synchronize Watches  m. Establish Time Limits  - Call to BO	0-2
		0-2
<del></del>	0407 - left.	
		nessin i
2.	Prepare Emergency equipment to be used underground  a. Gas checking equipment	0-3
	b. First Aid Supplies	0-3
	c. Back up apparatus for team	
	d. Maps, note pad	0-5 0-5
	e. Basket/Backboard	0-3
	f. Casualty Breathing Apparatus	0-5
	g. Firefighting equipment	0-5
	g. Firefighting equipment	U-5



3. Prepare team breathing apparatuses	
a. Perform high pressure leak test	0 – 10
b. Install Ice	0-5
c. Anti fog mask	0-5
4. Team under oxygen outside of Fresh Air Base	0-10
5. Verify breathing apparatus is functioning properly	0-10
6. Ensure Toyota operator is wearing breathing apparatus	0-5
Grown and the state of the stat	
7. Contact BO	
a. Time Limit	0-2
b. Destination	0-2
c. Time Team under 0 <sub>2</sub>	0-2
8. Board Toyota in a safe manner	0-5
9. Enter mine via Portal	0-5
10. Stop inside of portal	0-5
ADV MI AND THE ST. SHEET BY SEC. OF SE	V0 11 55
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Workplace Safety North-



11. Evaluate Conditions			- Tempo
	a.	Smoke	0-2
	b.	CO	0-2
	c.	Radio	0-2
	1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	MACL INVESTIGATION	-7
12. Perform Team Check			
	d.	BG4 functioning	0 – 5
	e.	Team OK	0-5
	f.	Record info	0-5
13. Contact BO via radio			
a. Report Conditions			0-3
b. Team Status	V		0-2
14. Proceed down ramp via Toyota			0-5
15. Locate unconscious Truck Operator			0 - 20
16. Contact BO via Radio			
a. Report Truck operator located			0-5
b. Report Conditions			0-3
c. Time Limit			0-2
d. Destination			0-2
e. Team Status			0-10



17. Perform First Aid (Primary)		
a. Airway		0-3
b. Breathing		0-3
c. Circulation		0-3
d. Gross Bleed Check	7 M M VA	0-3
18. Protect Casualty from furth	er contamination	0-5
465310		
19. Identify as Load and Go		0-18
	OR	
Perform First Aid (Secondar	v)	
a. Check head, eyes, ea		0-2
b. Check neck and thro		0-2
c. Check arms (left and	right)	0-4
d. Check Torso (front a		0-2
e. Check Pelvis		0-2
f. Check Legs and Feet	(left and right)	0-4
g. Check Back		0-2
	HE III	
19. Load casualty into stretcher		0-10
20. Transport Casualty to First A	Aid (surface)	0-10



21. Contact BO from FAB	
a. Report Casualty turned over to F/A	0-5
b. Report Toyota is no longer available	0-3
c. Time Limit	0-2
d. Destination	0-2
e. Team Status	0-10
22. Travel to Truck location via Ramp Portal	0-5
23. Ensure Truck is safe to pass	
a. Wheel Chocks	0-5
b. Master Switch	0-5
24. Proceed to 3930 Sill Ore pass	0-5
25. Contact BO	
a. Report Conditions	0-3
b. Time Limit to Build wall	0-2
c. Report Increase in Temperature	0-3
d. Team Status	0-10
26. Fabricate Wall	
a. Wall Completed within Time limit (20 min)	0 – 20
b. Construction materials used are sufficient	0-10
c. Construction Method Sufficient d. Construction work evenly shared	0-10 0-10



27. Contact BO	
a. Report Conditions	0-3
b. Report Status of Wall	0-5
c. Time Limit	0-2
d. Destination	0 – 2
e. Team Status	0-10
8. Travel to 150 L Refuge Station	0-5
	HERETA
9. Contact Construction Miner	
a. Perform verbal Primary	0-5
b. Obtain info about his partner	0-5 0-5
c. Place miner in a safe location (ie Refuge Station)	0-10
0. Contact BO	
a. Report Conditions	0-3
b. Report Status of Construction Miner	0-5
c. Time Limit	0-2
d. Destination	0-2
e. Team Status	0-10
1. Troval to DV same via 4210 Save V avec	0.5
1. Travel to RV ramp via 4210 Spur X-over	0-5
TANATA DE	TIR
32. Locate Injured Construction miner at DS7	0-20 70

Page | 6 of 11

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Workplace Safety North-



	ct BO via Radio			0 -	•
	Report Construction Miner Report Conditions	located	7 11	0-5 <u></u> 0-3	7
	Time Limit			0 - 2 <u> </u>	3 2
	Destination			0-2	2_
	Team Status			0-10_	10
	Scoop is safe				
	Wheel Chocks		0	-5 -5	<u> </u>
b.	Master Switch		0	-5 <u> </u>	<u> </u>
		1			
	m First Aid (Primary)			0 2	43
	Airway Breathing			0-3-	3 3 45 2
_	Circulation			0-3	
	Gross Bleed Check			0-3_	15 2
	G1033 bleed Clieck				
				ST.	
36. Apply	oxygen to casualty			0-5_	0
					(7)
37. Identi	fy as Load and Go		0	) — 18	10
		OR			
38. Perfor	m First Aid (Secondary)				
j		The AR			
k.	Check neck and throat				
1.7	Check arms (left and right)	solitory allerable			
	Check Torso (front and Sid	es)	(	0-2_	
n.	Check Pelvis		(	0-2_	
Revised: May 2	016	Page   7 of 11		<b>€</b>	Workplace Safety North



	Check Legs and Feet (left and right) Check Back	0-4
39. First A	Aid Treatment	
C.	Put on medical gloves	0-5
d.	Support Casualty in position found	0-20_2
e.	Control bleeding	0-10 <u>6</u>
f.	Support Embedded object in position found	0-5 0-20 0-10 0-5 2
40. Locate	e rescue tools (eDraulics)	0-10 6
41. Ensur	e tools are safe to use	0-5
42. Cut C	asualty Free	0-10
	Once Casualty is cut free	
g.	Place casualty on their side in the basket	0-20 25
	Recheck vitals	0-20
i.	Evacuate casualty to surface	0-20
-2		

CANADA 2016



43. Contact BO  a. Report Casualty turned over to F/A  b. Time Limit  c. Destination d. Team Status	0-5 0-2 0-2 0-10
44. Get Team out of O <sub>2</sub>	0-10
Miscellaneous:	Demerit:
Extreme unsafe action:	Max (-25)
Extreme poor casualty Care:	Max (-20 per casualty)
Damage to Mine Rescue Equipment:	Max (-5 per item)



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Tuesday August 23rd, 2016			
1	Canada 2	Vale Manitoba Operations	
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	— Break —	Break	
5	Russia	EMERCOM	
6	Russia	JSC SUEK	
7	India	Singareni	
8	India	Coal India Ltd.	
9	Vietnam	Vinacomin	
10	Slovakia	HBP	
11	Australia	Peabody Energy Wambo Coal	
12	Multinational	Goldcorp Americas	
13	Canada 1	Agnico Eagle Goldex Mine	
	— Break —	Break	
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15	Canada 1	Cameco McArthur River	
16	Canada 1	Kirkland Lake Gold	
17	Columbia	Colombia Coal Company	
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21	China	China Pingmei Senma Group	
22	China	Shaanxi Coal and Chemical Group	
	— Break —		
23	Poland	Bytom Weglokoks	
24	Poland	Scorpions Team Katowice	
25	Poland	Gray Wolfs	
26	Poland	KGHM White Eagles	
27	treland	Boliden Tara Mines	

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# Rich Shull



me Uı	nder O <sub>2</sub>	Time Casualty at F/A	All of
			MERITS
1.	Team to be briefed by Briefing Officer a. Information Available		0-5 V V O-2 V O-2 V
	<ul><li>b. Missing People Underground</li><li>c. Actions Taken So far</li><li>d. Team Assignment</li></ul>		0-2 V 0-2 V 0-2 V 0-2 V
	e. Route of travel f. Reserve Mine Rescue Teams		
	<ul> <li>g. Expected Conditions</li> <li>h. Mine Rescue Equipment available</li> <li>i. Transportation available</li> </ul>		0-2 0-2 0-2 0-2 0-2 0-2 0-2
	j. Location of First aid k. Communication Method		0-2 0-2 V
n e .   e	I. Synchronize Watches  m. Establish Time Limits  y water in fraction of boa		0-2 <u>V</u> 0-2 <u>V</u>
241			E SA
2.	Prepare Emergency equipment to be used	underground	
	a. Gas checking equipment		0-3
	b. First Aid Supplies		0-3
	c. Back up apparatus for team		0-5
	d. Maps, note pad		0-5
	e. Basket/Backboard		0-3
	f. Casualty Breathing Apparatus g. Firefighting equipment	×	0-5 0-5



3. Prepare team breathing apparatuses	
a. Perform high pressure leak test	0-10
b. Install Ice	0-5
c. Anti fog mask	0-5
4. Team under oxygen outside of Fresh Air Base	0-10
5. Verify breathing apparatus is functioning properly	0-10
6. Ensure Toyota operator is wearing breathing apparatus	0-5
7. Contact BO	
a. Time Limit	0-2
b. Destination	0-2
c. Time Team under O <sub>2</sub>	$ \begin{array}{c c} 0-2 & \checkmark \\ 0-2 & \checkmark \\ 0-2 & \checkmark \end{array} $
8. Board Toyota in a safe manner	0-5
9. Enter mine via Portal	0-5
10. Stop inside of portal	0-5
CANADA 20	116



11. Evaluate Conditions			
	a.	Smoke	0-2 0-2 0-2
	b.	СО	0-2
	C.	Radio	0-2
Reportal			
		210000000	1
12. Perform Team Check			
12. Perform ream check	٦	BC4 functioning	0_5
	u.	BG4 functioning	0-3
		Team OK	
	т.	Record info	0-5
13. Contact BO via radio			
a. Report Conditions			0-3
b. Team Status			0-3
Dow- Radio - broken up.			0-2
pour hazir - grapa up.			10.45
			The Chi
14. Proceed down ramp via Toyota			0-5
	[B27		
15. Locate unconscious Truck Operator			0 - 20
13. Locate disconscious frack Operator			0-20
			<u>u</u> -
16. Contact BO via Radio			
a. Report Truck operator located			0-5
b. Report Conditions			0-3
c. Time Limit			0-5
d. Destination			0-2
e. Team Status			0-10
ar raphir againment			
		****	



17. Perform First Aid (Primary) a. Airway b. Breathing c. Circulation d. Gross Bleed Check	0-3 0-3 0-3 0-3
18. Protect Casualty from further contamination	0-5
19. Identify as Load and Go	0-18
OR	
Perform First Aid (Secondary)	
a. Check head, eyes, ears	0-2
b. Check neck and throat	0-2
c. Check arms (left and right)	0-4
d. Check Torso (front and Sides)	0-2
e. Check Pelvis	0-2
f. Check Legs and Feet (left and right)	0-4
g. Check Back	0-2
19. Load casualty into stretcher	0-10
20. Transport Casualty to First Aid (surface)	0-10



21. Contac	ct BO from FAB	
a.	Report Casualty turned over to F/A	0-5
	Report Toyota is no longer available	0-3
	Time Limit	0-2
	Destination	0-2
	Team Status	0-10
22 Fravel	to Truck location via Ramp Portal	0-5
23. Ensure	e Truck is safe to pass	
a.	Wheel Chocks	0-5
b.	Master Switch	0-5
	Master Switch Called for permission	
24. Proce	ed to 3930 Sill Ore pass	0-5
25. Conta	ct BO	
	Report Conditions	0-3
	Time Limit to Build wall	0-3
c.	Report Increase in Temperature	0-3
	Team Status	0-3
26. Fabric	ate Wall	
a.	Wall Completed within Time limit (20 min)	0 – 20
b.	Construction materials used are sufficient	0-10
c.	Construction Method Sufficient	0-10
d.	Reported Complete	0-10
	Troberter complete	



		7 1
27 C		
27. Conta		
	Report Conditions	0-3
	Report Status of Wall	0-5
	Time Limit	0-2
	Destination RA	0-3 0-5 0-2 0-2 0-10
e.	Team Status	0-10
28 Travel	to 150 L Refuge Station	0-5_
20. 114761	to 150 t herage Station	
		HIGHWAY EN
29. Conta	ct Construction Miner	
a.	Perform verbal Primary	0-5
	Obtain info about his partner	0-5
	Place miner in a safe location (ie Refuge Station)	0-10
30. Conta	ct BO	
	Report Conditions	0-3 /
	Report Status of Construction Miner	0-5
	Time Limit	0-2
d.	Destination	0-3 0-5 0-2 0-2
	Team Status	0-10
31. Travel	to RV ramp via 4210 Spur X-over	0-5
32. Locate	e Injured Construction miner at DS7	0 – 20



33. Contact BO via Radio  a. Report Construction Miner b. Report Conditions c. Time Limit 3 9 2000 d. Destination e. Team Status	0-5 0-3 0-2 0-2 0-10
34. Ensure Scoop is safe  a. Wheel Chocks  b. Master Switch  Requestal	0-5 0-5
35. Perform First Aid (Primary) f. Airway g. Breathing h. Circulation i. Gross Bleed Check	0-3 0-3 0-3 0-3 0-3
36. Apply oxygen to casualty	0-5
37. Identify as Load and Go	0-18
38. Perform First Aid (Secondary) j. Check head, eyes, ears k. Check neck and throat l. Check arms (left and right) m. Check Torso (front and Sid n. Check Pelvis  Revised: May 2016	



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CANADA 2016



a. Report Casualty turned over to F/A b. Time Limit c. Destination d. Team Status	0-5 0-2 0-2 0-10
4. Get Team out of O <sub>2</sub> / 058 feen 0	X 0-10
Miscellaneous:	Demerit:
Extreme unsafe action:	Max (-25)
Extreme poor casualty Care:	Max (-20 per casualty)
Damage to Mine Rescue Equipment:	Max (-5 per item)



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Team	I I I I DECTON AND INCT AND ALL OF		
Number 1	Canada 2	Vale Manitoba Operations	
2	Canada 2	Sudbury Basin Cobras, KGHM	
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10	Slovakia	HBP	
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	Break	Break	
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25	Poland	Gray Wolfs	
26	Poland	KGHM White Eagles	
27	treland	Boilden Tara Mines	

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## #2 KGHM Sudbury

### **U/G SCENARIO**



7. Contact BO	
a. Report Conditions	0-3
b. Report Status of Wall	0-5
c. Time Limit	0-2
d. Destination	0-2
e. Team Status	0 – 10
8. Travel to 150 L Refuge Station	0-5
9. Contact Construction Miner	
a. Perform verbal Primary	0-5
b. Obtain info about his partner	0-5
c. Place miner in a safe location (ie Refuge Station)	0-10
O. Contact BO	
a. Report Conditions	0-3
b. Report Status of Construction Miner	0-5
c. Time Limit	0-2
d. Destination	0-2
e. Team Status	0-10
1. Travel to RV ramp via 4210 Spur X-over	0 – 5
	No. 100 September
2. Locate Injured Construction miner at DS7	,0-20 20

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Workplace Safety North =



22	C	00.4-	0-4:-
44	Contact	RO VIA	Kanic

- a. Report Construction Miner located
- b. Report Conditions
- c. Time Limit
- d. Destination
- e. Team Status

0-5	5
0-3	3
0-2	2

0-2\_2 0-10 /0

#### 34. Ensure Scoop is safe

- a. Wheel Chocks
- b. Master Switch

#### 35. Perform First Aid (Primary)

- f. Airway
- g. Breathing
- h. Circulation
- i. Gross Bleed Check

36. Apply oxygen to casualty

0-5\_0

37. Identify as Load and Go

0-18\_/0

#### OR

#### 38. Perform First Aid (Secondary)

- j. Check head, eyes, ears
- k. Check neck and throat
- I. Check arms (left and right) m. Check Torso (front and Sides)
- n. Check Pelvis

- 0-2\_\_\_\_
- 0-4\_\_\_\_
- 0-2\_\_\_\_\_





o. Cl	neck Legs and Feet (left and righ	t)		0-4
p. Check Back			0-2	
				700
Finished	@ 4:00, Slow	to	leave_	
but go	@ 4:00, Slow	12. 4		A CONTRACTOR OF THE CONTRACTOR
U	Disa ediler 37° ediler s			
39. First Aid	Treatment			
c. Pi	ut on medical gloves			0-5 <u> </u>
d. Sı	apport Casualty in position found	d		0-20 <i>20</i>
e. Co	ontrol bleeding			0-10 /0
f. Sı	ipport Embedded object in posit	tion found	b	0-20 <u>20</u> 0-10 <u>10</u> 0-5 <u>2</u>
cut wa	soit close enough.	. Hit	- pipe an	basket
	scue tools (eDraulics)			0-10 10
TO: Eddate Te	sede tools (ebidanes)			
		VIII-		
41. Ensure to	ools are safe to use			0-5_
may				
Dissil				
42. Cut Casu	alty Free			0-10
in to				
1 3		HESS.	Massistra i estiti	
OI	nce Casualty is cut free			
				2.
	ace casualty on their side in the	basket		0-20 <u>do</u> 0-5 <u>5</u>
	echeck vitals			
i. Ev	vacuate casualty to surface			0-20_20
<del></del>				

UMINADA GUIO

#2

## **U/G SCENARIO**



3. Contact BO	TOTAL CONTRACTOR OF THE PARTY O
a. Report Casualty turned over to F/A	0-5
b. Time Limit	0-2
c. Destination	0-2
d. Team Status	0-10
4. Get Team out of O <sub>2</sub>	0-10
Miscellaneous:	
	Demerit:
Extreme unsafe action:	Max (-25)
Extreme disare action.	Max ( 23)
Extreme poor casualty Care:	Max (-20 per casualty)
Domogo to Mino Posque Equipments	May / E non item
Damage to Mine Rescue Equipment:	Max (-5 per item)





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Workplace Safety North=



Team Number	Tuesday August 23rd, 2016		
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	Break	— Break —
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26	Poland	KGHM White Eagles
27	ireland	Boliden Tara Mines

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THE RESIDENCE OF STREET, STREE



# APPENDIX A2 — CAPTAIN AND BRIEFING OFFICER REPORTS









Team #3 0820 - Team pri-ded internation -0823 - AO at tonile-- or40 -Bo at board. - 0843 - Bodin trailer ods Tean contil Do a Reported condition at Porthele under 02 0147 Team OK - 30 min 6 3920 sill Bo - Had issues with building Barriedo and altering vertlation. Ugozho team And- I't casality of Connuncction broken Bo Rognested - First Al - new burlish & caravent - Reported How & niving





0908 - 15 min to surface 1 - request permission & pass hanlage truck 0920 - pour Radio Communication cuto in and out 0925 - 30ma to 3930 s.11 0913 - arrivel at destination -30 min time I mit 0939 - Jeam Called In - condition the same - building barricade. 0947- Team Call in - Communication broken 0956 - Tean Reported Inn





0957 Barricade Complete po advised Le soil tean to 4260 R/s 15 mm tine linit. 1007 - Teened collet in from R/s - found weaker who Reportal comorber stapped + empaled by Redan - 20 min time line 4640 xc #2 -R/s not established - man left in RIS 4022 - Tean Reported in. - Requested permission 10 min to get injured worker present for transport





- 1026 - Tean Requested

- Route of trust

- Call made to

1029 - Team Report
- Rejurd Jomin tine
1. mit

- Team Revort

- Team Ready to 50

- Time limit to surface

- using Cant

30 min to surface.

1045 - Tean Report
Taking Break
1054 - On Jurface.
- Lill & get out of Or

1058 - Unt of 02





2:39 problem time Rich Shulist.



# Team #2

ARED SINCE - Secure before touching him - good job supporting - check tools - cut top first 4.5 - bardage top 5-10 10-15 - on his side 13.5 18 15+ - conditions v - call Bo \_ Blanket -gloves - Bruising on face - judge Said going up - team check - long time (4:00)



Scoop Fire

Scoop Fire

building ben 1765#8

14:-exp. Fam 727

Teem #2, 30930 150 Level

e Seal 3530 drift to decress wat

elean cenain

Toyale Jeep, operator (under apportus 220 pri)

Info fire in 4101 stope, 300 level

People (9 people mission unaccounted)

ASF · Tecm # 1 - storted fighting line with loans Ir Heat That st. 5 terms (6 on site 18 coming Inst. (A, W, E) Rof. Sto on mint Cond. ROT. Son light Smokether Vert shows on print Vis. B.d. MR. TIC commit, Spen Bb" FF hose anorale FA . stadad To S material @ wall TC 2400

The on Excell in 4101 stope Team #1 building barriede 64260x-cuts. We are team #2.

The on Excell in 4101 stope Team #1 building barriede 64260x-cuts.

The on Excelling control groups to build beniede 6 3930 sill drift (150 buil)

Proceeded 46 & encountered unions cious resuelly 6 substation below

50.00 Team PRINTS. 5000 Temp PAR AC. Treated rasualty (unconscious, smoke inhalation), would niche Handra of to EHS Proceeded to 3930 sill drift Built benieve encontened minimal heat (33 dry, 25 wet) Flow is none after berricado is built Control group informed us to proceed to refuge station (4260 refide) Courning tran the 84 minutes is 6 ft for hock expressione impelled by rober in RV Ramp DS 7. Ref. str is considered berricede due to 24 phone John will remain in barricader Continued to RV Ramp DS 7 to treat casualty Arrived at casualty, secured which found sediculie cutters dured to it Casualty treated, carried wasn't applied since he's conscious & travelling Team proceeded to RV portal to hard of Matt to ENS Matts with @ some & booth rapid Zubya, pulse strong & 2 bpa on route, breath rapid 24 brother pulse " 84 bpm. Far left behind Collan

· Casualty unconscions · no injuries · Sympte inhelation

ask about location for casualty

Constitute 11.

#### **Information for teams:**

#### Information #1 given to team upon their arrival:

2 hours and 20 minutes ago; a scoop fire was reported in the 4101 stope. As phone communication is down making it very difficult to account for everyone underground, Team #1 was sent to investigate the fire. Team #1 has been under oxygen for 55 minutes and have reported that the scoop tires are fully engulfed in flames and due to the possibility of explosion it would be unsafe to approach any further, they are building a barricade from a safe distance in the 4260 xcut #8 so the fire can be extinguished using high expansion foam. Prep your team and await further instructions.

## <u>Information #2 to be given to the briefing officer upon arriving in the briefing trailer;</u>

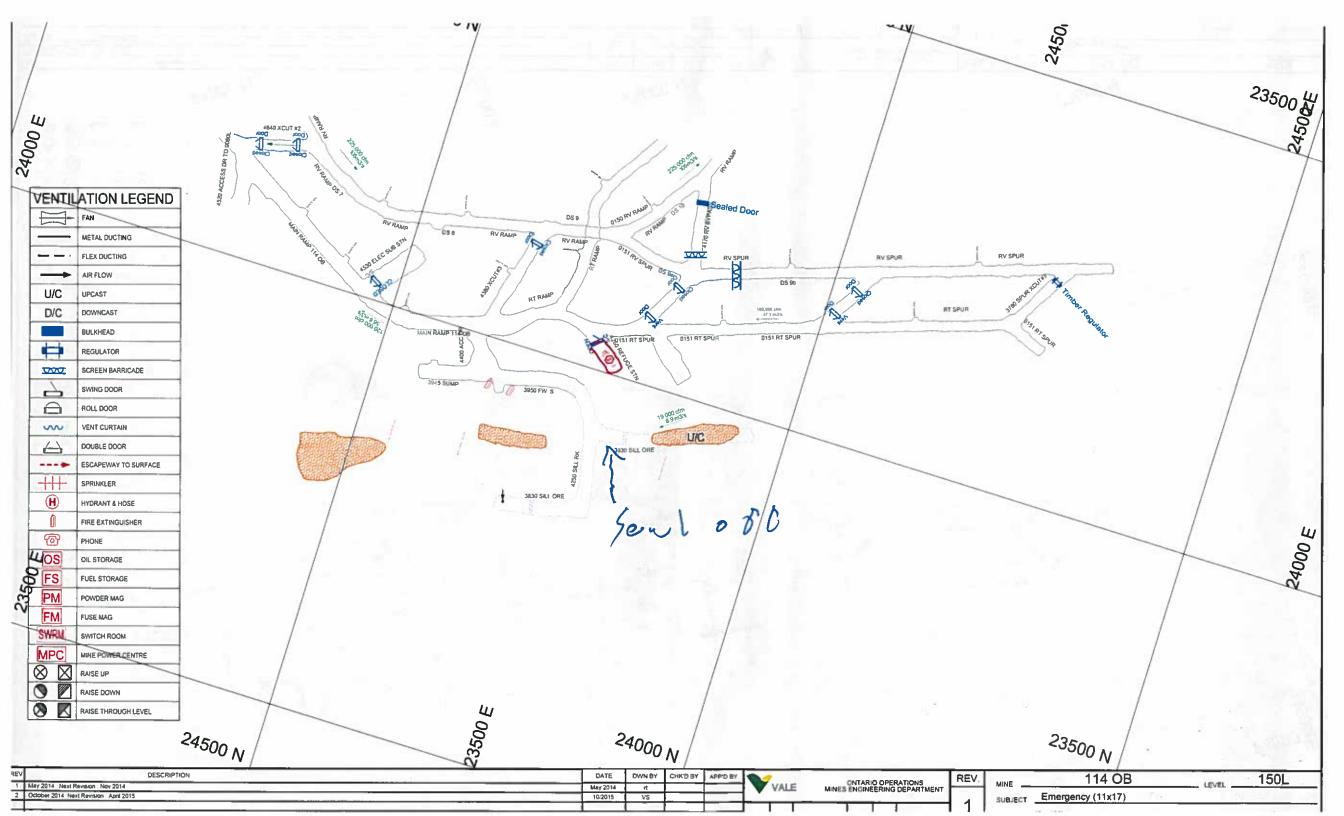
Your Team will be activated as Team #2; we would like them to proceed to the 3930 sill drift on the 150 level. Their assignment is to seal off the 3930 sill drift in order to decrease ventilation exhausting from the fire so that the foam remains at the bottom of the stope. The team will travel via a Toyota jeep and there is an operator. The jeep operator is under apparatus and their bottle pressure is 2200 psi (full).

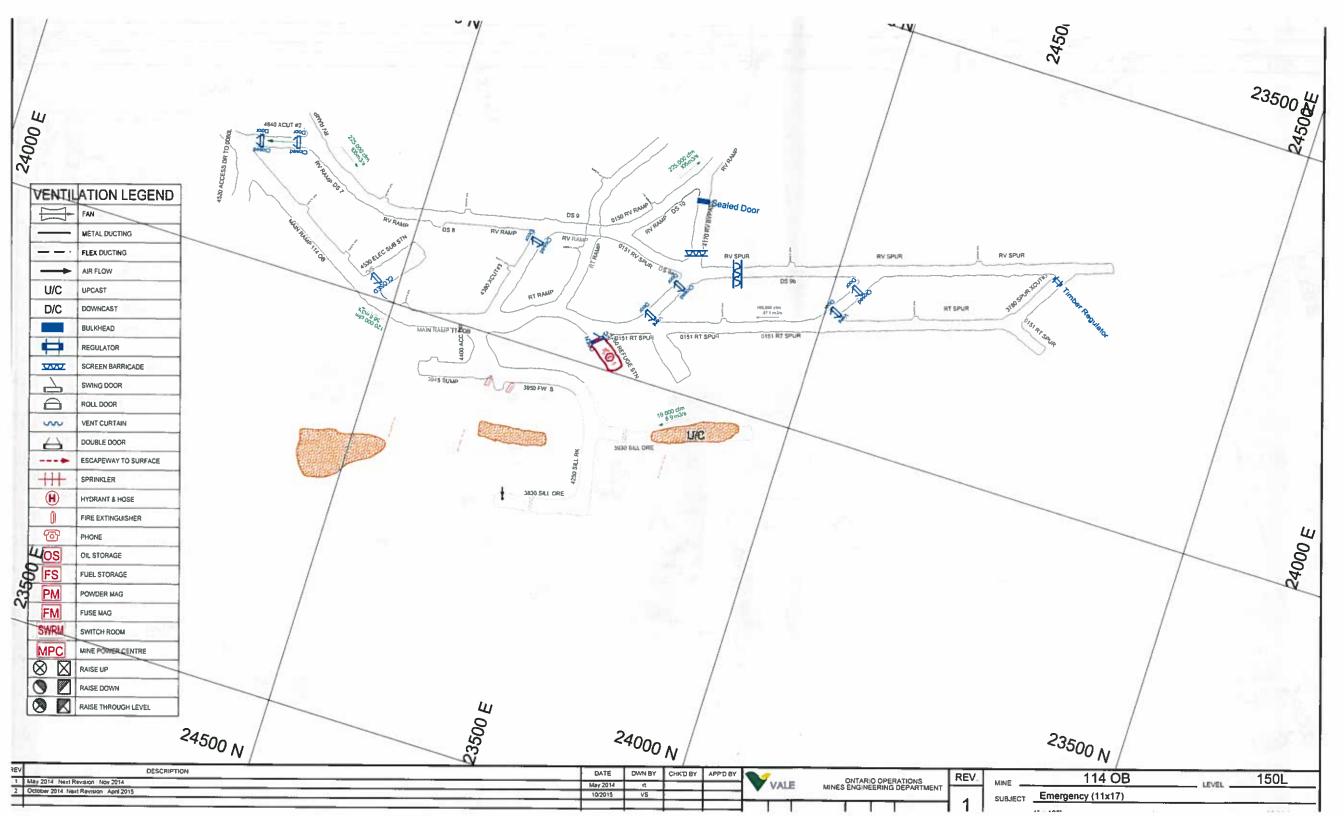
hosian ozali

#### INTERNATIONAL MINE RESCUE COMPETITION 2016

#### CASUALTY REPORT

	Considerins
$\bigvee$	- Conditions - Clear
	Protuding 15011
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Juso Team #2 Proceed to 3930 sill on 150 lavel

Assign-Sect 3930 Sill & decreuse vento Travel-Toyota jeeps OP-2200 psi.

People - 9 missing

Actions-

Intention

Standy - 6 to Ms on site 18 conf.

- Ems- here

Comm-radion

Refore

Robbe - exhaust

Travel route condi- map

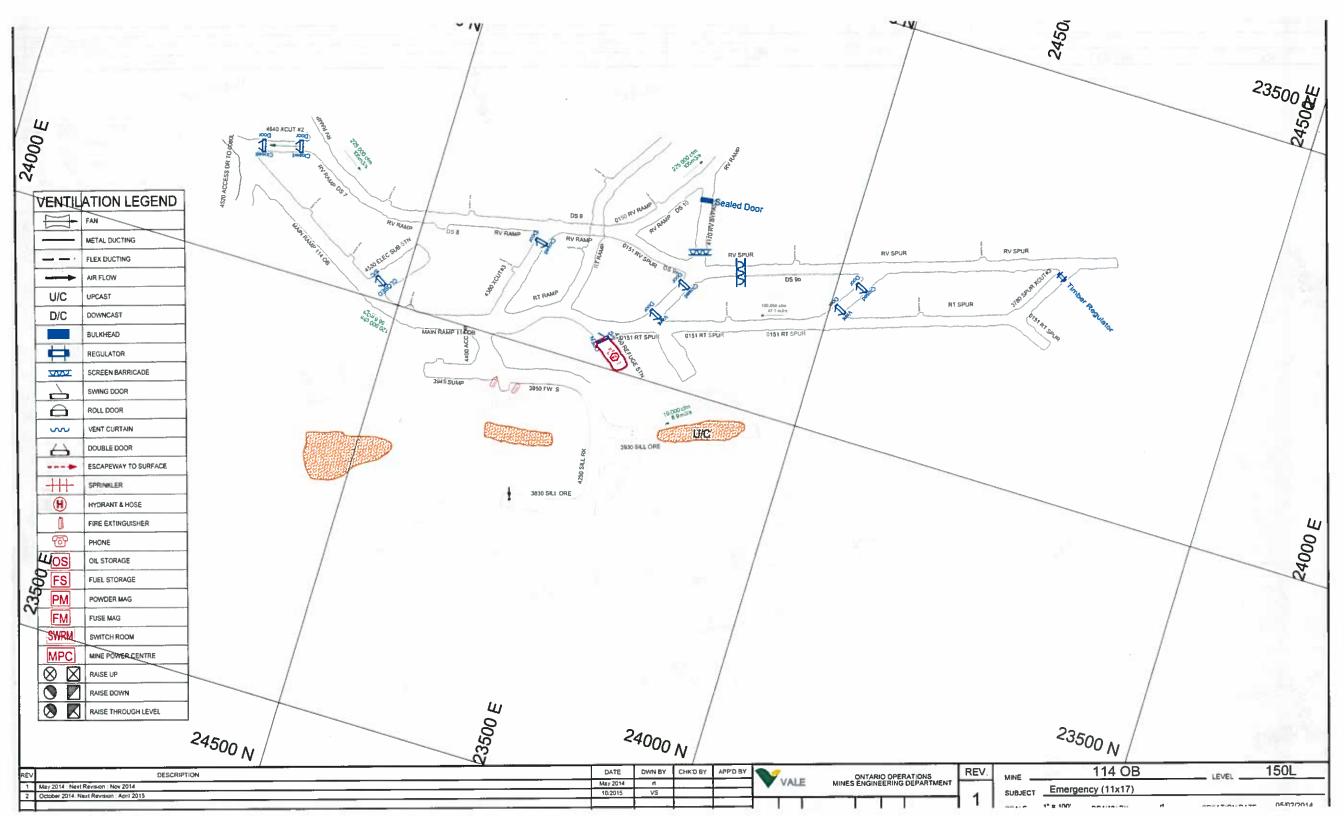
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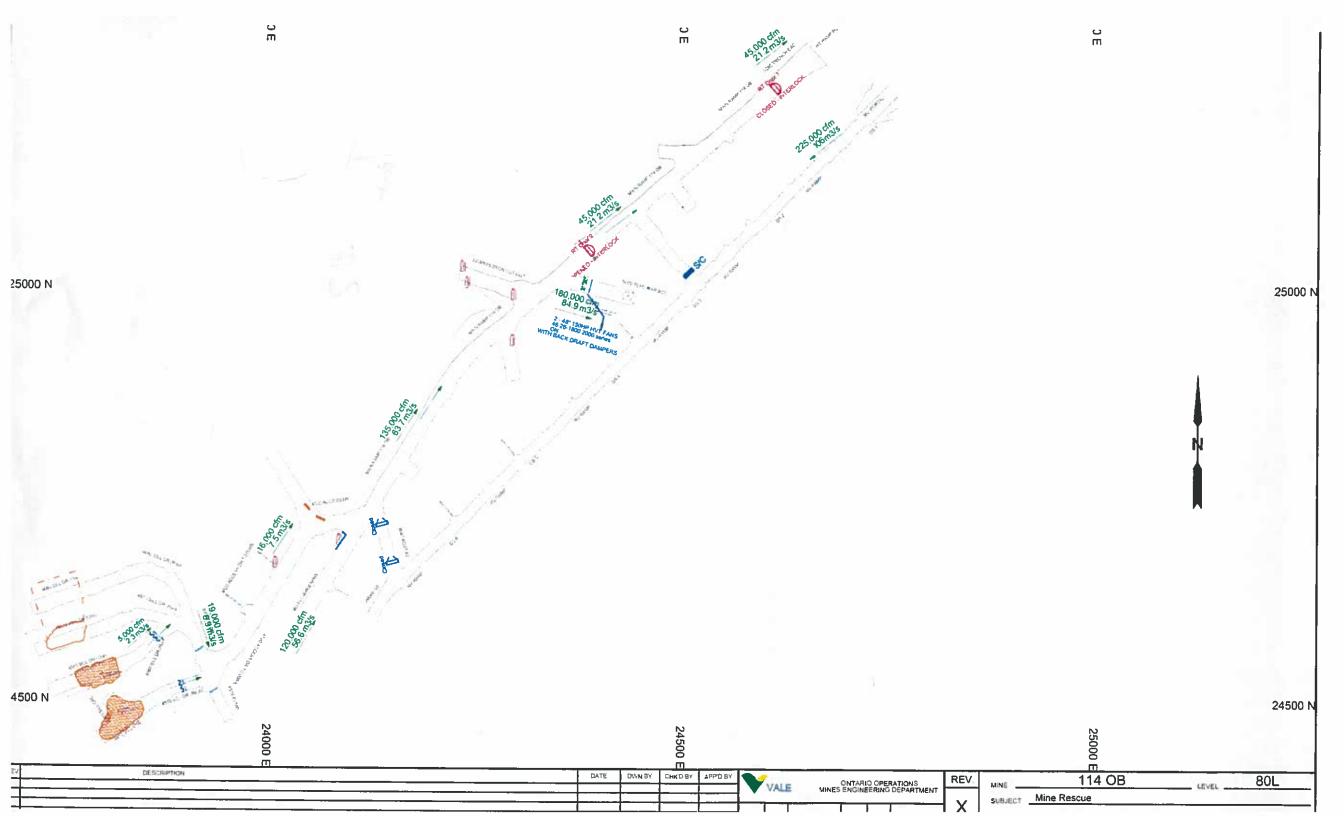
Time limit-

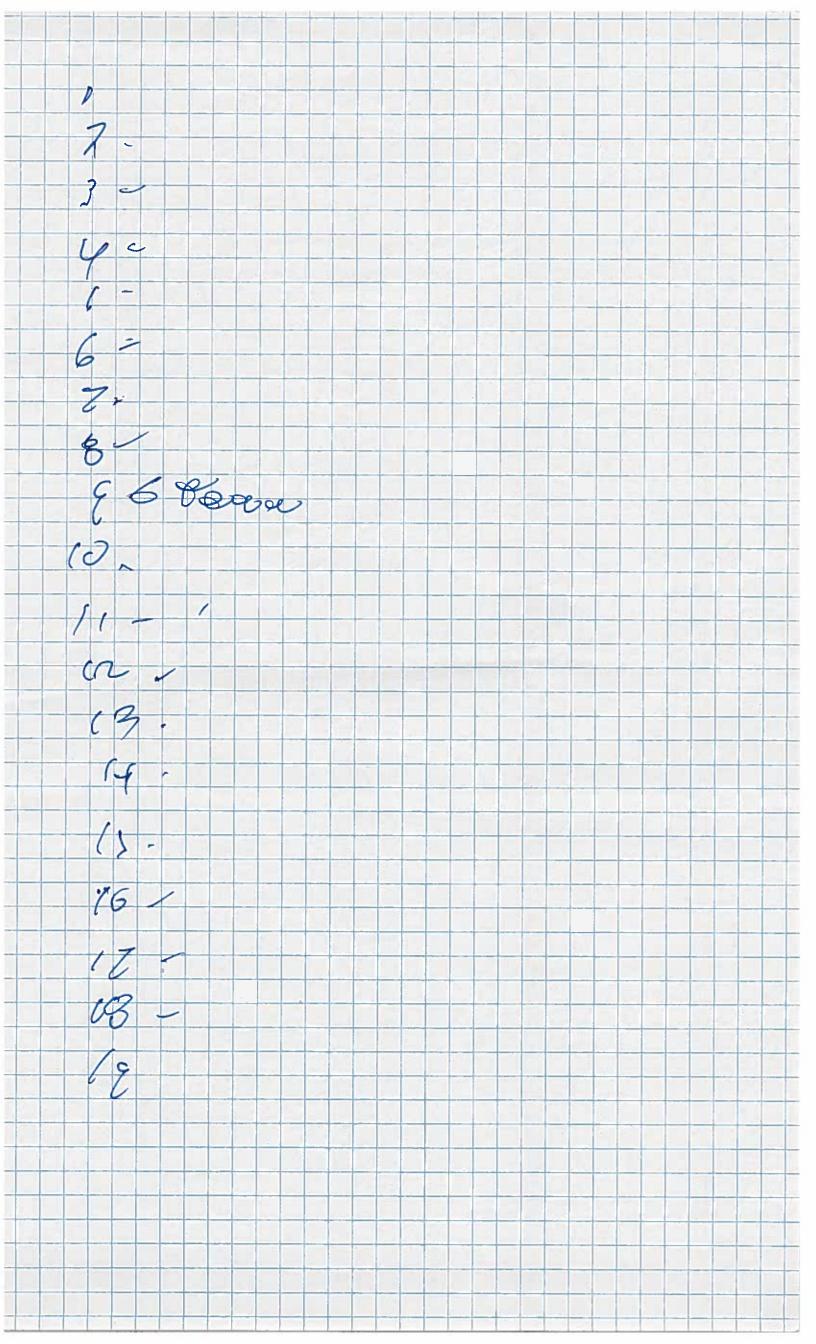
Fire borning - Z:20 vin No electrical

#### **Ontario Mine Rescue Heat Exposure Standard** 86 84 \*

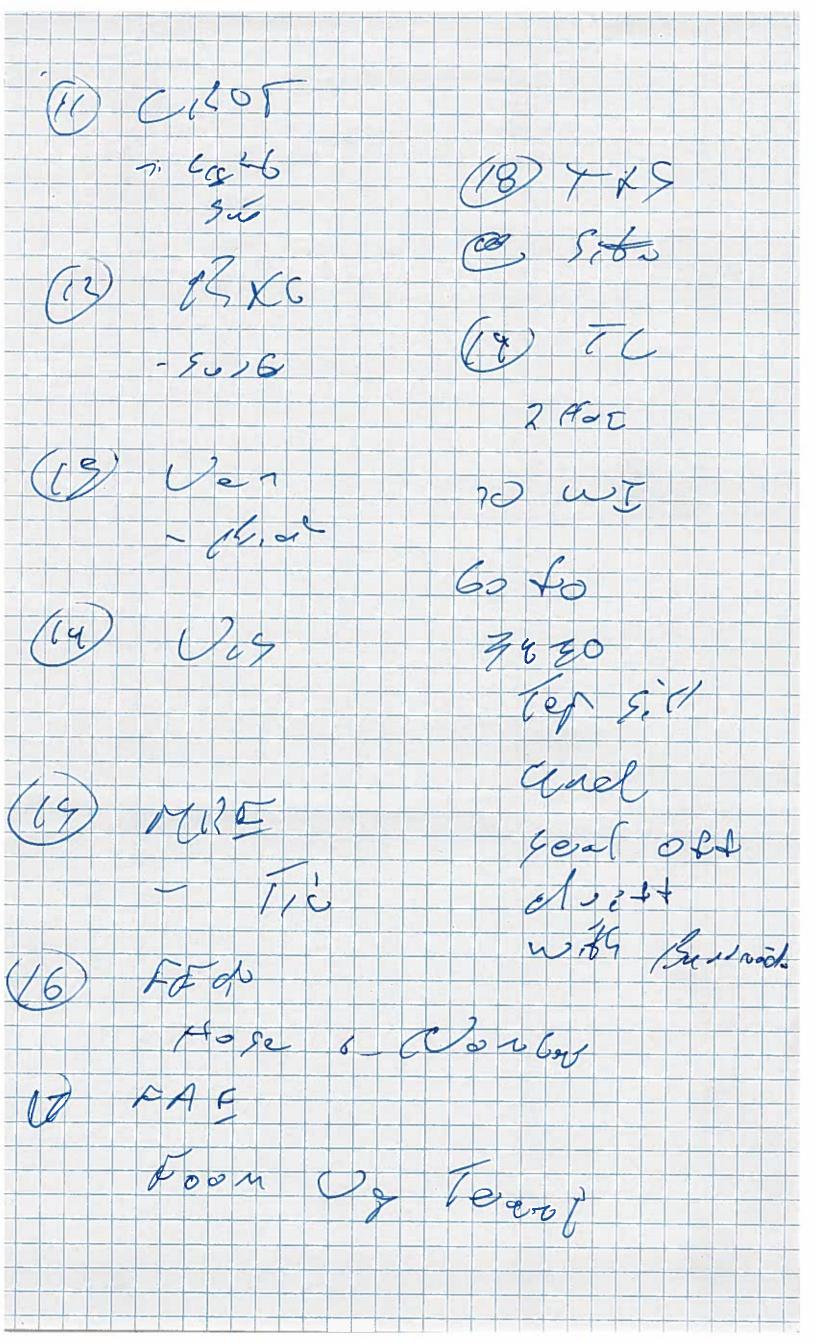
### **Dry Bulb Temperature**







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(B) 8:40 Fear Day Complete

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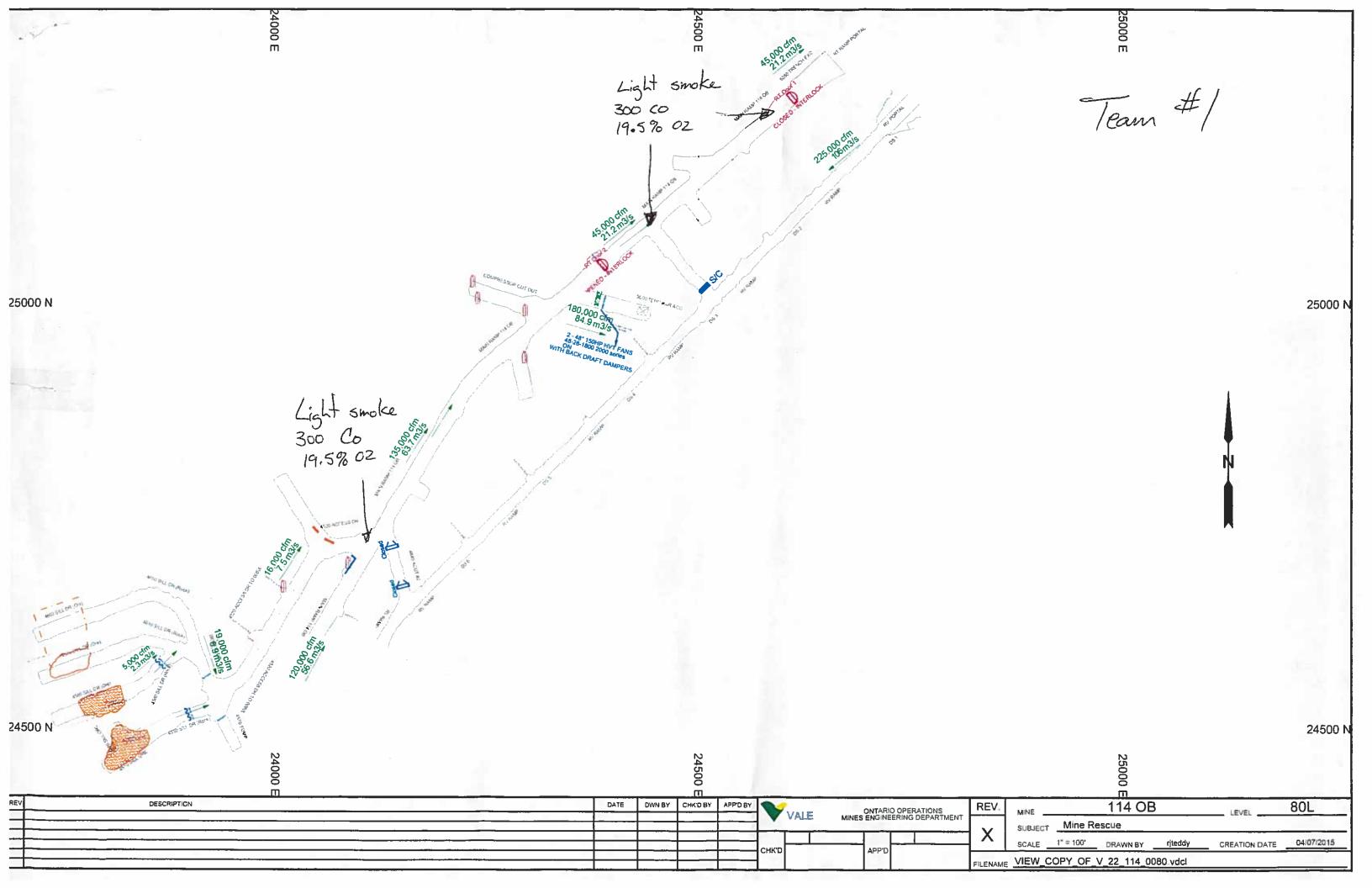
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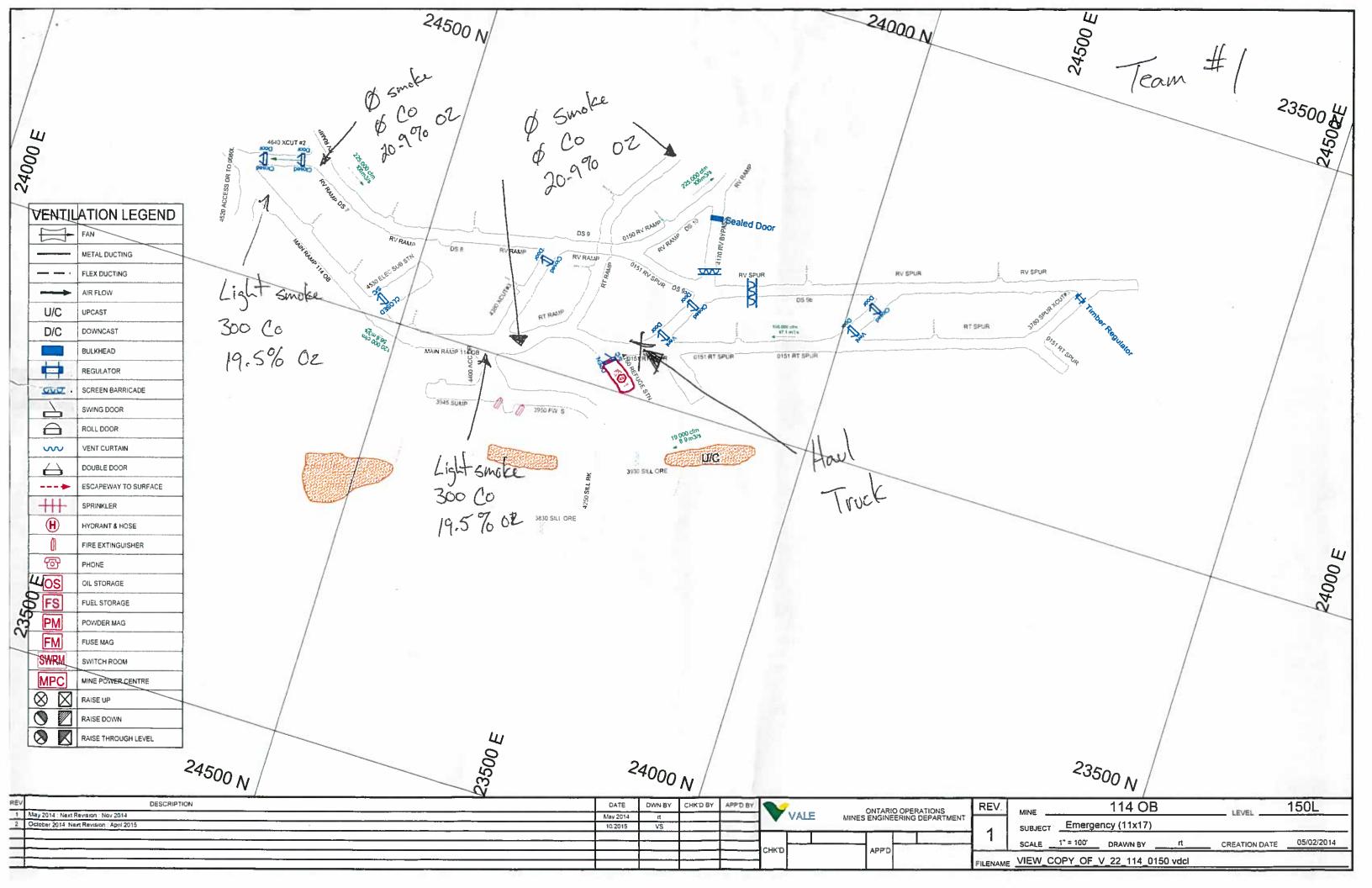
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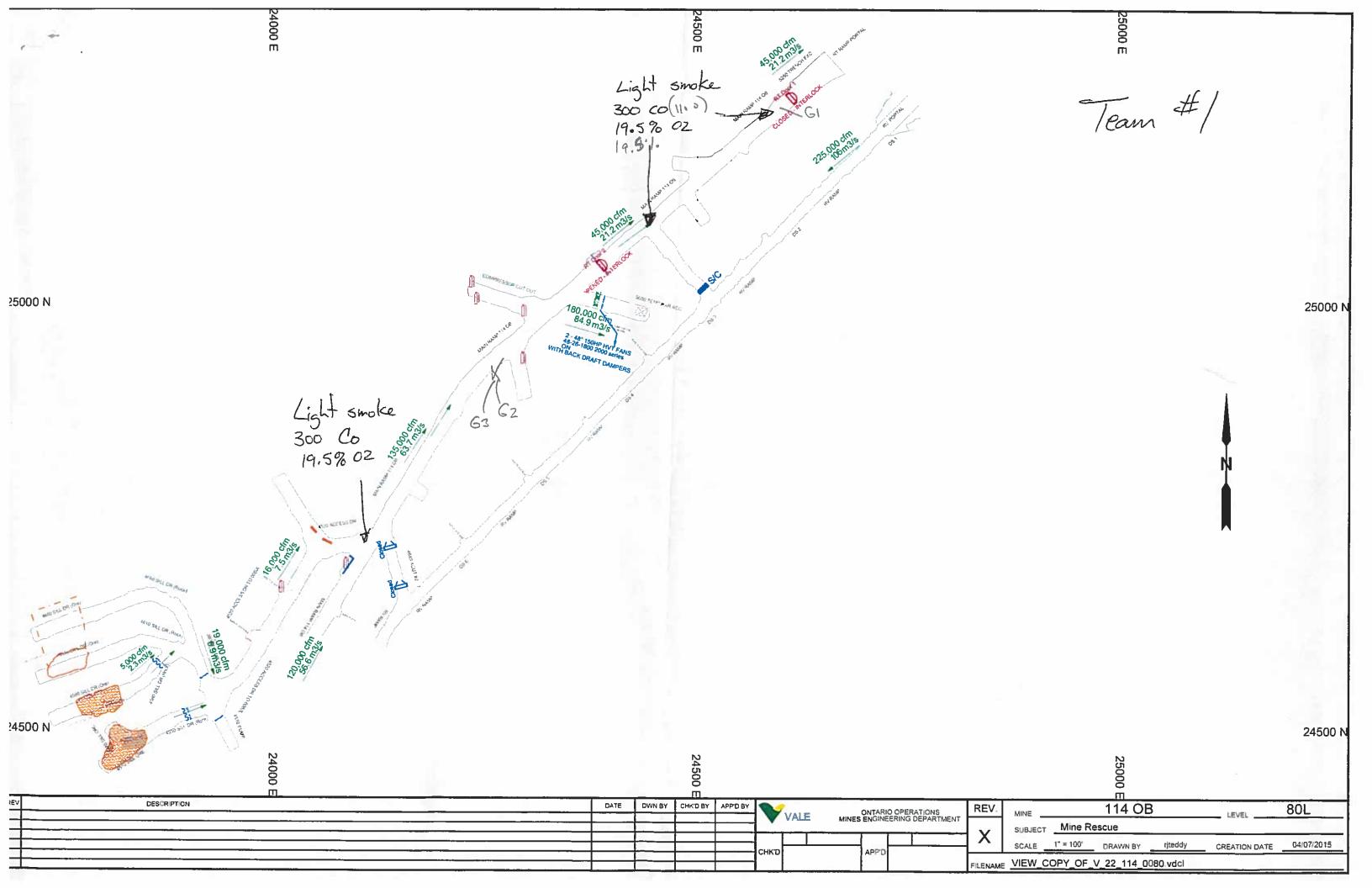
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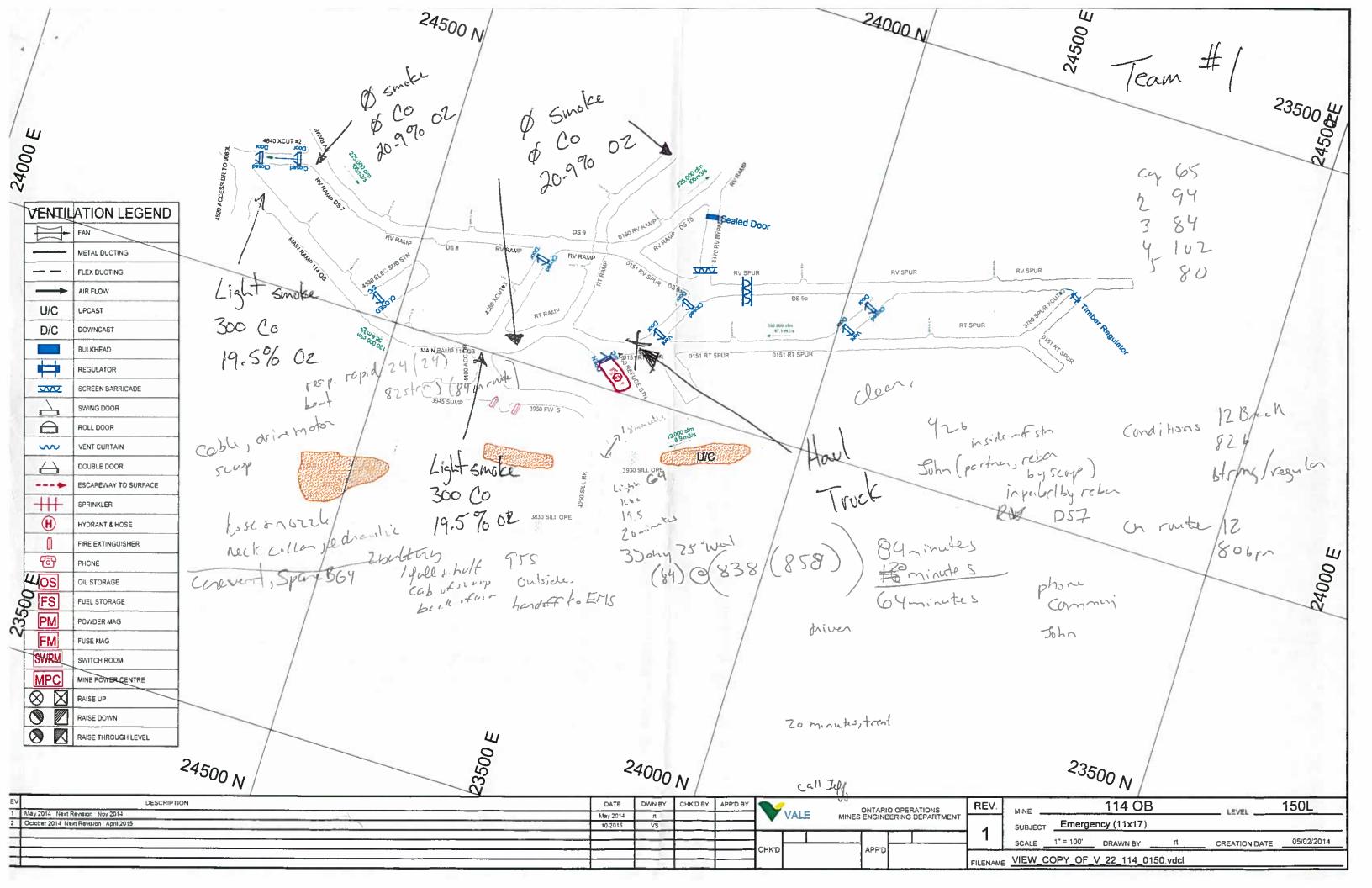
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## APPENDIX A3 – TABLET DATA





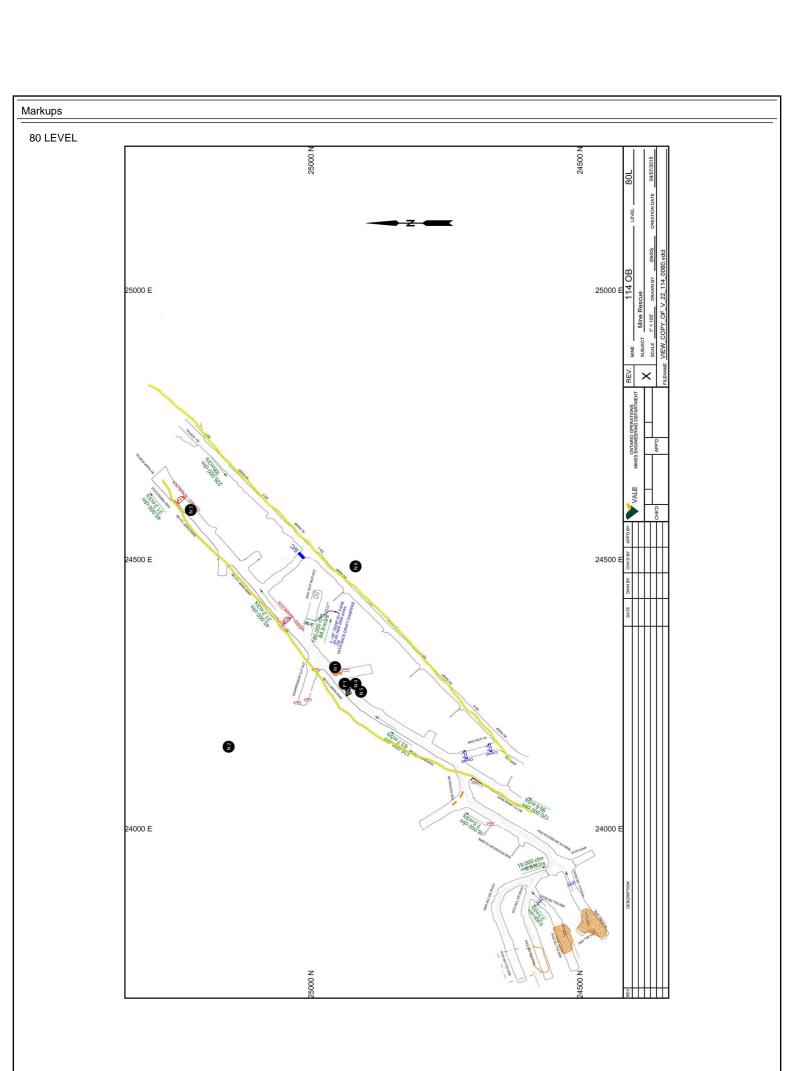


Incident ID:	201608230252	Mine	VALE 114 OB	Incident Type:	Competition	NTAR
Date & Time of	Aug-23-2016 05:52			District	Competition	7
Incident MRO	Nicole Darbaz					A PESON
IVIICO	NICOle Darbaz					ARED SINCE 191
Team ID: 2016082302	05540	•				
-	20040					_
Members:						
Role	Name	Арра	aratus #	Presure	Time	
Briefing Officer	Matt Larose					
Captain	Tom Hopkins	1		200	05:56	_
No. 2	John Laasane	n 2		200	05:56	
No. 3	Gen Krasowsk	i 3		200	05:56	
No. 4	Don Campeau	4		200	05:56	
V. Captain	Joel Larcher	5		200	05:56	_
No. 6		,				
-						_
Captains Equipment						
Standard			Auxillary			
MX6 Gas Monitor	0		Fire Fighti	ng Equipment	0	
SSR 90M (Team Unit	) 0		Tools		0	
First Aid Kit	0		SSR 90		0	
Kestrel	0		Level Plan	าร	0	
Chalk - Paint	0		Special Ed	quipment	0	
Probe Stick	0		Communic	cations	0	
Draeger X-am 5000	0		Carevent		0	
BG4	0		Other		0	
Carevent	0		BG4		0	
Stretcher	0		Stretcher		0	
Fire Fighting Equipme	ent 0					
Communications	0					
Whistles	0					

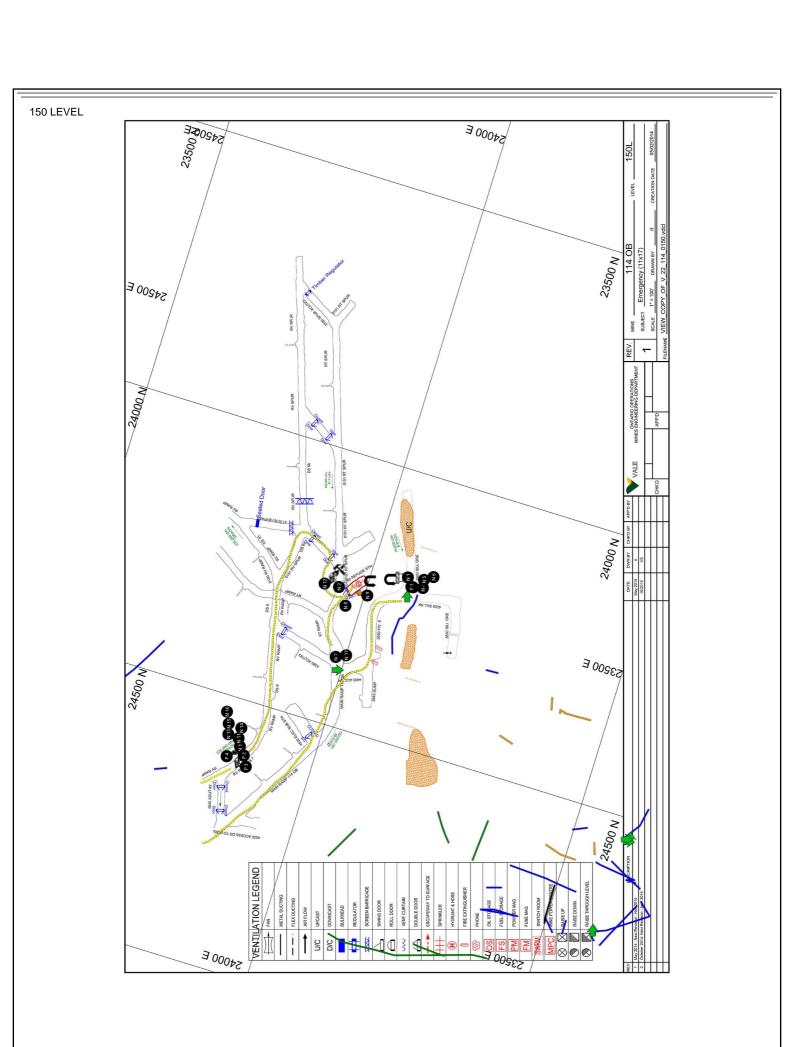
Captain's O2 R	eadings						
Time	Captain	No.2	No.3	No.4	V Captain	No.6	
05:56	200	200	200	200	200		
03:13	159	176	173	175	175		
03:30	144	153	158	152	156		
03:47	131	151	147	152	142		
04:09	113	134	129	136	122		
04:29	88	113	109	120	102		
04:50	65	94	84	102	80		
04:51	65	94	84	102	80		
04:57	0	0	0	0	0		

#### Captain's Notes

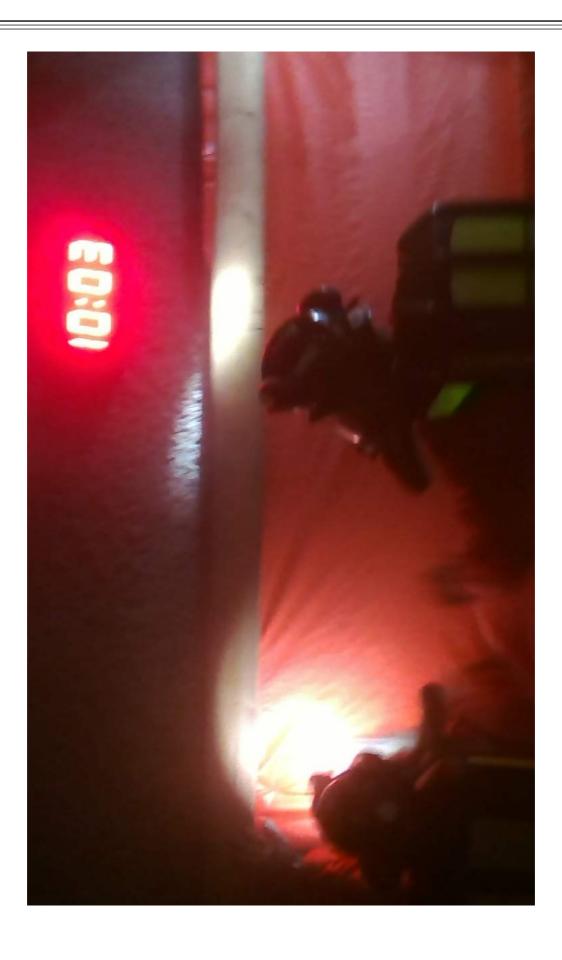
Captain's N	Notes									
Time	Location	Smk	СО	O2	CH4	Doors	Fans	Flow	Time Limit	Destination/ Report
14:54	Fresh air base								15	To enter portal
14:58	Portal	Light	1100	19.5	0				15	3930 Sill Drift (150 Level)
15:11	Electrical room	Light	1100	19.5	0				20	Treat casualty
15:22	Electrical Room	Light	1100	19.5	0				15	3930 Sill Drift (150 Level)
15:37	3930 Sill Drift	Light	1100	19.5	0				20	Build barricade in 3930 Sill Drift (150 Level)
15:54	3930 Sill Drift	Light	1100	19.5	0				15	4260 Refuge Station
15:54	3930 sill drift	light (no flow)	1100	19.5	0				15	4260 Refuge station
15:58	Ramp past 3930 access	None	0	20.9	0					4260 Refuge station
16:09	4260 Refuge station (Barr	None	0	20.9	0				20	RV Ramp DS 7 (casualty)
16:23	DS7	None	0	20.9	0				15	Treat Casualty
16:36	DS7	None	0	20.9	0				20	RV Portal
16:56	Surface (outside portal)	Clear	0	20.9	0				10	Getting out of 02. Handoff to EMS (Matt) @ 955am
17:14										O2 readings should be at 9:55am. Tablet didn't connect. Cap asked BO to input at 9:55 am. Time stamped 9:57.

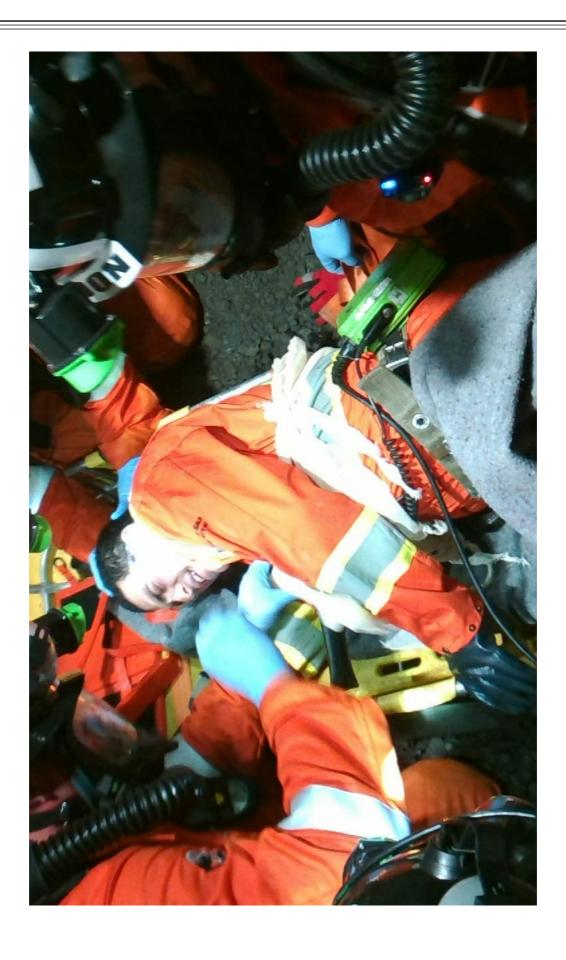


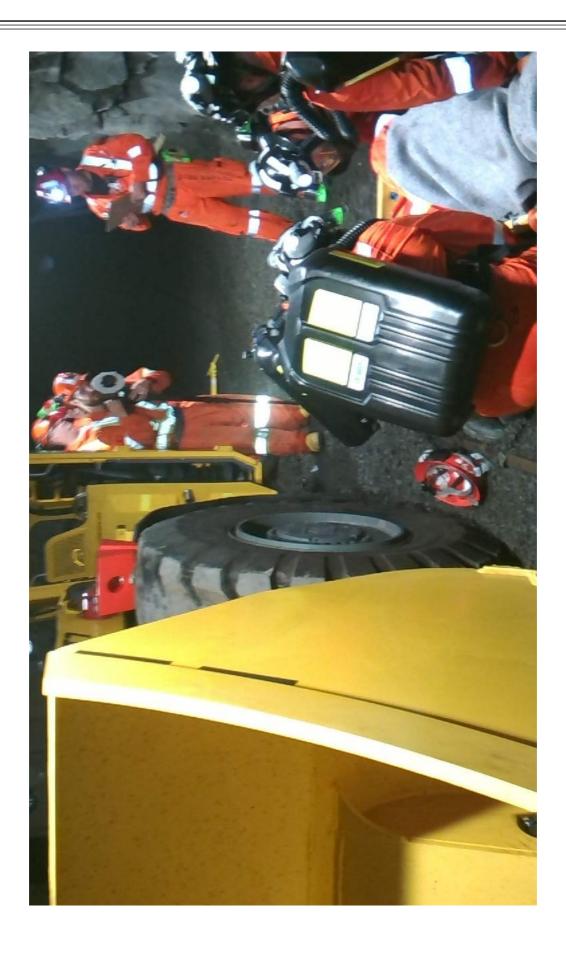
N 1	Conditions of casualty at the scene, 12 breath per minutes, 82 beats per minute (Strong & Regular) / On route, 12 breath per minute & pulse was 80 beats per minutes.
N 2	Gas check #1, CO : 1100, O2 : 19.5%, CH4 : 0, Light smoke
N 3	Gas check #1, CO : 1100, O2 : 19.5%, CH4 : 0, Light smoke
N 4	Gas check #2, CO : 1100, O2 : 19.5%, CH4 : 0, Light smoke
N 5	Gas check #3, CO : 1100, O2 : 19.5%, CH4 : 0, Light smoke
N 6	Ramp is clear, no contaminants.



N 1	Need to build barricade
N 2	Haulage truck (From Team #1)
N 3	Temperature reading is Dry: 33 degrees Celcius & Wet bulb : 25 degree Celcius
N 4	Gas check #4, CO : 1100, O2 : 19.5%, CH4 : 0, Light smoke
N 5	Tools an equipment to build barricade (vent tubing, wood, etc.)
N 6	No flow once barricade was built. Conditions are the same.
N 7	Gas clear
N 8	Barricade
N 9	John informed us that his partner was impelled by rebar in the RV Ramp DS 7. John will remain in the Refuge station (Refuge is considered a barricade due to having no phone)
N 10	Vehicle is secured.
N 11	Casualty name is Matt, Conscious with bolt going through his mid section.
N 12	Truck wasn't here as per Team #1 info.
N 13	Hydraulic spreader/cutter is at this location
N 14	Scoop damage the RV, but is secured.
N 15	Gear left behind: cutters, hose & nozzle, neck collar.
N 16	Matt's conditions at the scene; breath rapid at 24 breath per minutes, pulse strong at 82 beats per minutes. Matt's condition on route; 24 breath per minutes, pulse strong at 84 beats per minutes
N 17	Heat exposure limit stopped here, 64 minutes left out of the original 84 minutes.







200 LEVEL 24000 N 24500 N LENAME VIEW COPY OF V 22 114 0200.vdcl 24500 E 24500 E SUBJECT Emergency (11x17) ONTARIO OPERATIONS MINES ENGINEERING DEPARTMENT VALE 24000 E 24000 E VENTILATION OF GEND

REAN

METAL

MATANA SCREEN BARRICADE FIRE EXTINGUISHER HYDRANT & HOSE 23500 E FUEL STORAGE DOUBLE DOOR - - - FLEX DUCTING SWITCH ROOM SWING DOOR VENT CURTA POWDER MA RAISE DOWN ROLL DOOR SPRINKLER AIR FLOW BULKHEAD FUSE MAG D/C D/C 3 Œ 24500 N 24000 N

300 LEVEL 24000 N 24500 N 24500 E 24500 E ONTARIO OPERATIONS MINES ENGINEERING DEPART 24000 E 24000 E VENTILATIONS EGEND

FRN G

METAL DIGGING SCREEN BARRICADE FIRE EXTINGUISHER FLEX DUCTING 23500 E BULKHEAD 1 3 24500 N 24000 N N 1 Scoop Fire N 2 Team #1 building a barricade in the area to extinguish the fire.

MRO Review nd 09/15/16 Incident Summary Incident ID: 201608230252 Mine: VALE 114 OB District: Competition Incident Type: Competition Mine Rescue Officer: Nicole Darbaz Date of Incident: Aug-23-2016 05:52 Mutual Aid: Yes Relief man on call: Nicole Darbaz Time MRO Notified: Time MRO Arrived: Time MRO Supervisor Notified: Time First Team Arrived: Time Team Responded: Time All Clear:

02:04:42.5400000

Injured Workers:
Total Teams on Site:
Team ID: 20160823025540

Aditional Comments:



## APPENDIX B – UNDERGROUND FIRE FIGHTING SCENARIO









Master



## SPECIFIC PROBLEM SCORESHEET

## UNDERGROUND FIREFIGHTING SCENARIO

EVALUATOR REFERENCE INFORMATION

Flectrical Scenario

<u>Electrical Scenario</u>	
TEAM Sudbury Basin Cobras	KGHM
COUNTRY CULLARY	
Stop and assess hazard of electrical junction box arcing	(5)_5
Assure team safety by maintaining a respectful distance from the box	ne arcing electrical
Team member proceeds past STOP line Team member proceeds past middle line Team stops before middle line	(0) (5) (10) <u>/</u> o
Disconnect the power feed to the junction box.	(10) / 0
Lockout power feed at junction box.	(10) / 0
Proceed past electrical box, down ramp.	(5) <u>5</u>
Go directly to Shop	(5)
	40

Notes:	
	<u> </u>
	<u> </u>
TOTAL COORT	
TOTAL SCORE	
×	
EVALUATOR:	
Print Name:	And the second s
	···
Signature:	





# INTERNATIONAL MINES RESCUE COMPETITION

## SPECIFIC PROBLEM SCORESHEET

#3

## UNDERGROUND FIREFIGHTING SCENARIO

## EVALUATOR REFERENCE INFORMATION

Electrical Scenario

TEAM Sudbury Basin Cobras			
COUNTRY Canada			
Stop and assess hazard of electrical junction box arcing	(5) 5		
Assure team safety by maintaining a respectful distance from the arcing electrical box			
Team member proceeds past STOP line Team member proceeds past middle line Team stops before middle line	(8) (5) (10)_/0		
Disconnect the power feed to the junction box.	(10)		
Lockout power feed at junction box.	(10) _//		
Proceed past electrical box, down ramp.	(5) 5		
Go directly to Shop  Went into Preshair drift  debated weether or not togoto refuse  Station turn and went to shop	(5) &		
	1 Page		

Notes:	
	10 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -
	110
TOTAL SCORE	
EVALUATOR:	
Print Name: Mask Wanns	<u>.</u>
	2016/08/28





#### SPECIFIC PROBLEM SCORESHEET

## UNDERGROUND FIREFIGHTING SCENARIO

## EVALUATOR REFERENCE INFORMATION Electrical Scenario

TEAM SUPBURY BASIN COBI	lo
COUNTRY CANADA	<del></del>
Stop and assess hazard of electrical junction box arcing	(5)_5
Assure team safety by maintaining a respectful distance from the box	e arcing electrical
Team member proceeds past STOP line	(0)
Team member proceeds past middle line	(5)
Team stops before middle line	(10) / ()
Disconnect the power feed to the junction box.	(10) / )
Lockout power feed at junction box.	(10) 10
Proceed past electrical box, down ramp.	(5)
Go directly to Shop	(5) <u></u>
	140
	/ 1   Pag

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Signature	e: <u> </u>				
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Master





## SPECIFIC PROBLEM SCORESHEET

#### UNDERGROUND FIREFIGHTING SCENARIO

## EVALUATOR REFERENCE INFORMATION Fresh Air Base and Briefing Officer

TEAM KGHM-	Sudbury	_ Operations	
COUNTRY	anada		

The Briefing officer will receive a description of the scenario and an assignment from the Control Group.

The Briefing Officer, after collecting information will develop a plan of action for his team to safely and fully complete the assignment he received from the Control Group. He will then brief the team and relay the assignment and his plan of action.

Assemble information by asking "Control representative" for critical pieces of information.

Status of Ventilation	(y/n)
Status of Electrical Installations	(y/n)
Status of Compressed Air / Water	(y/n)
Availability of Back-up Team	(y/n)
Fire Fighting Equipment	(3) 3
Copy of Prints / Maps	(3) 3
History of Hazardous Gasses	(0)
Hazards to the team (ground conditions, open holes, etc.)	$(3)_{3}$
Refuge Area / Plan for his Team	(3) 3
Communications	(3) 3

1|Page

The Plan of action will include the following:	(a) (
- Activate a Mine Rescue Team	(2) 7
<ul> <li>Have team prepare and wear SCBA from st</li> </ul>	$ \text{urface.}  (2) \underline{\beta} $
<ul> <li>Have team take a fire hose and nozzle</li> </ul>	(2) 2
- Have team take a Foam Fire Extinguisher	(2)
<ul> <li>Have team take Minimum Equipment, inclu</li> </ul>	ıding:
-Gas Detector-	(2) $2$
-Kestral Weather Meter	(0) 0
-Backup Breathing Apparatus for the team	
(BG4)	(2) 2
-First Aid Kit for the team	(y/n)
-Radio	(2) 2
-Basket stretcher	(2) 2
-Captains notebook	(2) 2
-Thermal Imaging Camera	(2) 2
Team Preparation:	
- Prepare minimum equipment	(5) 5
- Prepare breathing apparatus	(6)
- Assemble for briefing	(6)
-Each team member is attentive during the briefi	ng $(6)$ $\frac{1}{\sqrt{2}}$
- Captain / Team is given the opportunity clarify	_
assignment	(5)
- All equipment required to be taken is inspected	
- Thermal Imaging Camera	(1)
- Hose / Nozzle	(1)
<ul> <li>AFFF extinguisher</li> </ul>	(1)
- Basket	(1)
<ul><li>Gas monitor</li></ul>	(1)
Getting The Team Under Oxygen. Each Team Member Includ	ing the Captain will:
-Put on their Face Mask	(1 each)
-Tighten Straps	(1 each)
-Turn On the Oxygen Cylinder.	(1 each)

The Captain will ensure that every team member, including the Captai	n, is
inspected before entering contamination. Every team member will be o	7.5
<ul> <li>To ensure that they are fit and OK to proceed</li> <li>Check the SCBA Mask for a good seal</li> </ul>	(2 each) (2 each) (2
- Check the SCDA Wask for a good sear - Check each members pressure	$(2 \operatorname{each})/\mathcal{V}$
Chook duch members pressure	(2 00012)/0
Before Entering the Mine, the Captain shall:  -Ensure that they have all Minimum Required Equipment	, and all
necessary additional equipment, with them. (5)_	
Contact the briefing officer to establish a destination	
limit. (5)	5
After Entering the Mine, the Mine Rescue Team Shall Evaluate Condi	/
- Air Quality CO (2) * O2 (2)	2
· · ·	2
• Smoke Density (2)_	<u> 2)                                   </u>
When Contamination is identified and the intent is to advance the tean	n from an area
of fresh air, into the contaminated atmosphere, the Captain must:	I II OIII GII GI GI
- Check the team in contaminated air	(5) 5
- Confirm that each team member is OK to proceed	
- Report to the Briefing Officer	(y/n)
	5
Proceed down ramp	(5)
At Electrical Scenario:	-
Report to Briefing Officer before proceeding to shop	(5) 5
At Fire Scene:	and the same of th
Notify Briefing Officer fire is out.	(5)
Receive a time limit back to surface.	(5) 5
Contact Briefing Officer when on surface.	(5)
Receive order to take team "out of Oxygen" then Stand Down	(5) 5
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	3 Page
	-11.12

Shut off oxygen cylinders	(lea) (5) 6 (lea) (5) 6
Remove breathing apparatus face masks	( len (5) 6
Notes:	
TOTAL SCORE	19/
EVALUATOR:	
Print Name:	
Signature:	
	4 Page





### **UNDERGROUND FIREFIGHTING SCENARIO**

EVALUATOR REFERENCE INFORMATION
Fresh Air Base and Briefing Officer

TEAM	KGHM	Sudbury	Operations
COUNTR	ay C	ANAPA	

The Briefing officer will receive a description of the scenario and an assignment from the Control Group.

The Briefing Officer, after collecting information will develop a plan of action for his team to safely and fully complete the assignment he received from the Control Group. He will then brief the team and relay the assignment and his plan of action.

Assemble information by asking "Control representative" for critical pieces of information.

Status of Ventilation	(y/n) <u> </u>
Status of Electrical Installations	(y/n) _ Y
Status of Compressed Air / Water	(y/n) _ Y
Availability of Back-up Team	(y/n) _ <u> </u>
Fire Fighting Equipment	(3) 3
Copy of Prints / Maps	(3) _3
History of Hazardous Gasses	(0) 0
Hazards to the team (ground conditions, open holes, etc.)	(3) 3
Refuge Area / Plan for his Team	(3) 3
Communications	(3) 3

1|Page

The Plan of action will include the following: Activate a Mine Rescue Team (2) 2 (2) 2 Have team prepare and wear SCBA from surface. (2) \_ ~ Have team take a fire hose and nozzle Have team take a Foam Fire Extinguisher  $(2)_{2}$ Have team take Minimum Equipment, including: (2)\_2 -Gas Detector-(0)  $\bigcirc$ -Kestral Weather Meter -Backup Breathing Apparatus for the team (2) ~ (BG4) -First Aid Kit for the team (y/n) № -Radio (2) ~ (2) \_ ~ -Basket stretcher -Captains notebook  $(2)_{-}$ -Thermal Imaging Camera (2) Team Preparation: (5) W/A - Prepare minimum equipment (6) N/A- Prepare breathing apparatus - Assemble for briefing (6) N/A -Each team member is attentive during the briefing - Captain / Team is given the opportunity clarify their  $(5)_{5}$ assignment - All equipment required to be taken is inspected - Thermal Imaging Camera (1) N/A Hose / Nozzle (1) NA AFFF extinguisher (1)  $\nu/A$ (1) N/A Basket Gas monitor (1)Getting The Team Under Oxygen. Each Team Member Including the Captain will: -Put on their Face Mask (1 each) <u>~/a</u> (1 each) N/A -Tighten Straps

-Turn On the Oxygen Cylinder.

(1 each) N/A

The Captain will ensure that every team member, including the Captain inspected before entering contamination. Every team member will be	-
inspected before entering contamination. Every team member will be - To ensure that they are fit and OK to proceed	7
- Check the SCBA Mask for a good seal	•
- Check each members pressure	(2 each) <u>N/A</u>
	(= 00012) 0 1/1
Before Entering the Mine, the Captain shall:	1 -11
-Ensure that they have all Minimum Required Equipmen	· 1
necessary additional equipment, with them. (5) _i Contact the briefing officer to establish a destination	
	5 _
11111t.	<u> </u>
After Entering the Mine, the Mine Rescue Team Shall Evaluate Condi	
	2
■ O2 (2)_	2
• Smoke Density (2)_	۷
When Contamination is identified and the intent is to advance the team	n from an area
of fresh air, into the contaminated atmosphere, the Captain must:	,
<ul> <li>Check the team in contaminated air</li> </ul>	(5) <u>N/A</u> (1 ea) <u>N/A</u> (y/n) <u>Y</u>
- Confirm that each team member is OK to proceed	(1 ea) <u>N/A</u>
- Report to the Briefing Officer	
Proceed down ramp	(5) 5
At Electrical Scenario:	
Report to Briefing Officer before proceeding to shop	(5) 5
At Fire Scene:	
Notify Briefing Officer fire is out.	(5) 5
Receive a time limit back to surface.	(5) 5
Contact Briefing Officer when on surface.	(5) 5
Receive order to take team "out of Oxygen" then Stand Down	(5) 5
	3   P a g e

Shut off oxygen cylinders	100	<i>/</i> / ———
Remove breathing apparatus face masks	les	(8) 6
Notes:		
TOTAL SCORE		
EVALUATOR:		
Print Name: Shaun Carter		
Print Name: 5 havh Carter		
Signature:	<del></del>	4   P a g e

#21



#### SPECIFIC PROBLEM SCORESHEET

### **UNDERGROUND FIREFIGHTING SCENARIO**

EVALUATOR REFERENCE INFORMATION
Fresh Air Base and Briefing Officer

TEAM _	Sudbury	basin	Cobras	
COUNTR	Y Canado	L		

The Briefing officer will receive a description of the scenario and an assignment from the Control Group.

The Briefing Officer, after collecting information will develop a plan of action for his team to safely and fully complete the assignment he received from the Control Group. He will then brief the team and relay the assignment and his plan of action.

Assemble information by asking "Control representative" for critical pieces of information.

Status of Ventilation	(y/n)
Status of Electrical Installations	(y/n)
Status of Compressed Air / Water	(y/n)
Availability of Back-up Team	(y/n)
Fire Fighting Equipment	(3)
Copy of Prints / Maps	(3)
History of Hazardous Gasses	(0)
Hazards to the team (ground conditions, open holes, etc.)	(3)
Refuge Area / Plan for his Team	(3)
Communications	(3)

The Plan of action will include the following:  - Activate a Mine Rescue Team	(2)
- Have team prepare and wear SCBA from surface.	
- Have team take a fire hose and nozzle	(2)
- Have team take a Foam Fire Extinguisher	(2)
- Have team take Minimum Equipment, including:	,
-Gas Detector-	(2)
-Kestral Weather Meter	(0)
-Backup Breathing Apparatus for the team	
(BG4)	(2)
-First Aid Kit for the team	(y/n)
-Radio	(2)
-Basket stretcher	(2)
-Captains notebook	(2)
-Thermal Imaging Camera	(2)
Team Preparation:	
- Prepare minimum equipment	(5) <b>5</b>
- Prepare breathing apparatus	(6) 6
- Assemble for briefing	(6) 6
-Each team member is attentive during the briefing	(6) 6
- Captain / Team is given the opportunity clarify their	. /
assignment	(5) _5_
- All equipment required to be taken is inspected	
<ul> <li>Thermal Imaging Camera</li> </ul>	(1)
<ul><li>Hose / Nozzle</li></ul>	(1)
<ul> <li>AFFF extinguisher</li> </ul>	(1)
- Basket	(1)
<ul> <li>Gas monitor</li> </ul>	(1)
Getting The Team Under Oxygen. Each Team Member Including the	Captain will:
-Put on their Face Mask (1 ea	ach)
	ach) 6
	ach)

The Captain will ensure that every team member, including the Captain	-
- To ensure that they are fit and OK to proceed - Check the SCBA Mask for a good seal - Check each members pressure	(2 each) <u>/2</u>
Before Entering the Mine, the Captain shall:  -Ensure that they have all Minimum Required Equipment necessary additional equipment, with them.  (5) _  Contact the briefing officer to establish a destination limit.  (5) _	5
After Entering the Mine, the Mine Rescue Team Shall Evaluate Cond - Air Quality CO (2) O2 (2) Smoke Density (2) _	itions.
When Contamination is identified and the intent is to advance the team of fresh air, into the contaminated atmosphere, the Captain must:  - Check the team in contaminated air - Confirm that each team member is OK to proceed - Report to the Briefing Officer	(5)
Proceed down ramp	(5)
At Electrical Scenario:	
Report to Briefing Officer before proceeding to shop	(5)
At Fire Scene:	
Notify Briefing Officer fire is out.	(5)
Receive a time limit back to surface.	(5)
Contact Briefing Officer when on surface.	(5)
Receive order to take team "out of Oxygen" then Stand Down	(5)

.

Shut off oxygen cylinders	(5)
Remove breathing apparatus face masks	(5)
Notes:	
	-
	0.530
TOTAL COORE	
TOTAL SCORE	
EVALUATOR:	
Print Name: George Mondoux	
10,1	
Signature:	
	4   P a g e

#20

98



### SPECIFIC PROBLEM SCORESHEET

### **UNDERGROUND FIREFIGHTING SCENARIO**

EVALUATOR REFERENCE INFORMATION
Fresh Air Base and Briefing Officer

TEAM_	50	DBURY	BASIN	COBAS, KGHM.	_
COUNTR	RY_	CANA	DA Z	*****	

The Briefing officer will receive a description of the scenario and an assignment from the Control Group.

The Briefing Officer, after collecting information will develop a plan of action for his team to safely and fully complete the assignment he received from the Control Group. He will then brief the team and relay the assignment and his plan of action.

Assemble information by asking "Control representative" for critical pieces of information.

Status of Ventilation	(y/n)
Status of Electrical Installations	(y/n)
Status of Compressed Air / Water	(y/n)
Availability of Back-up Team	(y/n)
Fire Fighting Equipment	(3)
Copy of Prints / Maps	(3)
History of Hazardous Gasses	(0)
Hazards to the team (ground conditions, open holes, etc.)	(3)
Refuge Area / Plan for his Team	(3)
Communications	(3)

1 Page

	The Plan of action will include the following:	
	- Activate a Mine Rescue Team	(2)
	<ul> <li>Have team prepare and wear SCBA from surface</li> </ul>	e. (2)
	<ul> <li>Have team take a fire hose and nozzle</li> </ul>	(2)
	<ul> <li>Have team take a Foam Fire Extinguisher</li> </ul>	(2)
	- Have team take Minimum Equipment, including	:
	-Gas Detector-	(2)
	-Kestral Weather Meter	(0)
	-Backup Breathing Apparatus for the team	4,
	(BG4)	(2)
	-First Aid Kit for the team	(y/n)
	-Radio	(2)
	-Basket stretcher	(2)
	-Captains notebook	(2)
	-Thermal Imaging Camera	(2)
	Team Preparation:	
	- Prepare minimum equipment	(5) 5
		(6) 6
-0	- Assemble for briefing	(6) 6
آامد	Each team member is attentive during the briefing	(6) 6
J# -	- Captain / Team is given the opportunity clarify their	
stell.	assignment	(5) 5
100	- Prepare breathing apparatus - Assemble for briefing -Each team member is attentive during the briefing - Captain / Team is given the opportunity clarify their assignment - All equipment required to be taken is inspected - Thermal Imaging Camera	
mger.	<ul> <li>Thermal Imaging Camera</li> </ul>	(1)
<i>'</i> ''	<ul><li>Hose / Nozzle</li></ul>	(1)
	<ul> <li>AFFF extinguisher</li> </ul>	(1)
	- Basket	(1)
	- Gas monitor	(1)
	Getting The Team Under Oxygen. Each Team Member Including th	e Captain will:
	-Put on their Face Mask (1	each)
	•	each) 6
	S i	each)

The Captain will ensure that every team member, including the Captain	-
inspected before entering contamination. Every team member will be  - To ensure that they are fit and OK to proceed  - Check the SCBA Mask for a good seal	(2 each) 12 (2 each) 12
- Check each members pressure	(2 each)
Before Entering the Mine, the Captain shall:  -Ensure that they have all Minimum Required Equipmen necessary additional equipment, with them. (5) _  Contact the briefing officer to establish a destination limit. (5) _	5
After Entering the Mine, the Mine Rescue Team Shall Evaluate Cond  - Air Quality CO (2) _  - O2 (2) _  - Smoke Density (2) _	itions.
When Contamination is identified and the intent is to advance the team of fresh air, into the contaminated atmosphere, the Captain must:  - Check the team in contaminated air - Confirm that each team member is OK to proceed - Report to the Briefing Officer	
Proceed down ramp	(5)
At Electrical Scenario:	
Report to Briefing Officer before proceeding to shop	(5)
At Fire Scene:	
Notify Briefing Officer fire is out.	(5)
Receive a time limit back to surface.	(5)
Contact Briefing Officer when on surface.	(5)
Receive order to take team "out of Oxygen" then Stand Down	(5)

Shut off oxygen cylinders	(5)	
Remove breathing apparatus face masks	(5)	
Notes:		
TOTAL SCORE		
EVALUATOR:		
Print Name: ROBERT MARIN		
Signature:		
	4   Page	



#### **UNDERGROUND FIREFIGHTING SCENARIO**

## EVALUATOR REFERENCE INFORMATION Fresh Air Base and Briefing Officer

举多		Fre
**		τſ

Sudbury Basin Cobras

COUNTRY Canada

The Briefing officer will receive a description of the scenario and an assignment from the Control Group.

The Briefing Officer, after collecting information will develop a plan of action for his team to safely and fully complete the assignment he received from the Control Group. He will then brief the team and relay the assignment and his plan of action.

Assemble information by asking "Control representative" for critical pieces of information.

Status of Ventilation	(y/n)
Status of Electrical Installations	(y/n)
Status of Compressed Air / Water	(y/n)
Availability of Back-up Team	(y/n)
Fire Fighting Equipment	(3)
Copy of Prints / Maps	(3)
History of Hazardous Gasses	(0)
Hazards to the team (ground conditions, open holes, etc.)	(3)
Refuge Area / Plan for his Team	(3)
Communications	(3)

The Plan of action	will include the following:	
_	Activate a Mine Rescue Team	$(2)$ $\mathcal{L}$
<b>-</b> **	Have team prepare and wear SCBA fro	om surface. (2) 2
_	Have team take a fire hose and nozzle	
-	Have team take a Foam Fire Extinguis	
-	Have team take Minimum Equipment,	
	-Gas Detector-	(2)
	-Kestral Weather Meter	$(0)$ $\bigcirc$
	-Backup Breathing Apparatus for the t	`
	(BG4)	(2)
	-First Aid Kit for the team	(y/n)
	-Radio	(2)
	-Basket stretcher	(2) 2
	-Captains notebook	$(2)$ $\bigcirc$
	-Thermal Imaging Camera	(2) 2
Feam Preparation		1
ream Preparation - Pr - Pr - As	ver ver	7
-Pr	repare minimum equipment	(5) 5
- Pr	repare breathing apparatus	(6) 6
1	ssemble for briefing	(6) <u>6</u>
	ch team member is attentivé during the l	
- Ca	aptain / Team is given the opportunity cl	
	assignment 🗸	(5) _ 5
- Al	ll equipment required to be taken is insp	
305	- Thermal Imaging Camera	(1) 1
Good job	Hose / Nozzle	(1) 1
6000 500	- AFFF extinguisher	(1)
12000	Basket V	(1)
	- Gas monitor	(1)
Getting The Team Under Oxygen. Each Team Member Including the Captain will:		
-Put	on their Face Mask	(1 each)
-Tigl	hten Straps	(1 each)
-Turi	n On the Oxygen Cylinder.	(1 each)

	The Captain will ensure that every team member, including the Captain, is		
	inspected before entering contamination. Every team member will be checked:  To ensure that they are fit and OK to proceed (2 each)		
	<ul> <li>Check the SCBA Mask for a good seal</li> <li>Check each members pressure</li> </ul>	(2 each) (2 each)	
	Before Entering the Mine, the Captain shall:  -Ensure that they have all Minimum Required Equipment necessary additional equipment, with them. (5)  Contact the briefing officer to establish a destination limit. (5)	and time	
Excell	After Entering the Mine, the Mine Rescue Team Shall Evaluate Condition of the Mine Res	tions.	
	When Contamination is identified and the intent is to advance the team of fresh air, into the contaminated atmosphere, the Captain must:  - Check the team in contaminated air  - Confirm that each team member is OK to proceed  - Report to the Briefing Officer	(5) 5	
	Proceed down ramp	(5) 5	
	At Electrical Scenario:		
	Report to Briefing Officer before proceeding to shop	(5)	
	At Fire Scene:		
	Notify Briefing Officer fire is out.	(5)	
	Receive a time limit back to surface.	(5)	
	Contact Briefing Officer when on surface.	(5)	
	Receive order to take team "out of Oxygen" then Stand Down	(5) 3   P a g e	

Shut off oxygen cylinders	(5)
Remove breathing apparatus face masks	(5)
Notes:	
Very protessional knowledgeable	
TOTAL SCORE	
EVALUATOR:	
Print Name: Lee Morrsa	
Signature: Le Moura	
	4   Page

Master



### SPECIFIC PROBLEM SCORESHEET

### **UNDERGROUND FIREFIGHTING SCENARIO**

### EVALUATOR REFERENCE INFORMATION Spill and Firefishting

Spill and Firefighting		
TEAM Sudbyry Basin Cobras, K	GHM	
COUNTRY Lineda	<u></u>	
Locate and evaluate spill of Flammable Liquid.	(5) 5	
Apply foam to spill to contain vapours.	(10) / 0	
Apply foam indirectly to spill so that no liquid is splashed from containment area. (roll on from in front of spill or arc so that it is bounce off of an object so that it runs onto the spill)	the spill falls lightly or (10)	
Do not disturb foam cover once it is applied.	(10)	
Report to Briefing Officer before proceeding past.	(5)	
Locate and evaluate the Fire past the spill.	(10) / 0	
Proceed past Spill Hazard Only After foam cover suitably applied. (10)		
The Team will identify "HEAT" after they pass the fuel spill. The water header and protect themselves from the heat using a fire heaf before advancing.	hey must locate a ose with fog spray	
	115	

Recognize heat as a hazard and notify Briefing Officer	(10) 10	
Locate water header and test for flow.	(5) 5	
Hose #1	7	
Roll out fire hose without advancing into the Heat.	(3) 5	
Have no kinks in the fire hose	(3) 3	
Connect fire hose to water header.	(3) 3	
Install nozzle on fire hose.	(5)	
Turn on water to charge fire hose.	(5) 5	
Set fire nozzle to fog pattern before advancing into heat.	(10) <u>/O</u>	
The fire hose with fog will protect the team from the Heat so that they can proceed toward the fire, but this will only allow them to explore up to the fire as any attempt to switch to a fire fighting stream will expose them again to intense heat. A second hose will be required. One to protect the team with fog and one to fight the fire. If a team did not use the foam extinguisher at the spill they may still have it available for fire attack. Merits may be awarded for fire attack with a second fire hose or with foam extinguisher, NOT Both.		
Fog curtain not dropped until flames extinguished and heat reduced.	(10)	
2 <sup>nd</sup> Fire Hose used:		
Use a second hose and nozzle for fire attack	(10)	
Roll out fire hose without advancing into the Heat.	(3)	
Have no kinks in the fire hose	(3)	

Connect fire hose to water header.



Install nozzle on fire hose.	(5)
Turn on water to charge fire hose.	(5)
Set fire nozzle to stream pattern before advancing into heat.	(10)
Check for function before advancing.	(5)
Advance and fight fire from behind fog curtain.	(10)
AFFF Extinguisher used: Use a foam extinguisher for fire attack	(10)
Before advancing with the extinguisher to fight the fire, check the extinguisher and range by activating a short burst from the extinguisher.	nguisher for (20)
Apply extinguishing agent until the fire is fully extinguished. (stir coastraight stream, scaling bar, etc.)	als with (10) / 0
Confirm that the fire is out (heat, smoke, glowing coals etc.)	(10) _/()
Check extinguished fire with Thermal Imaging Camera	(5) 5
Evaluate air quality:  - Air Quality  CO  O2  Smoke Density	(2) <u>Z</u> (2) <u>Z</u> (2) <u>Z</u>
Report to Briefing Officer before leaving shop	(5) 5.
Reassess fuel spill when passing.	(5)
Reassess electrical box when passing.	(5) 5
	3 Page

Notes:	
TOTAL GOODE	127
TOTAL SCORE	100
EVALUATOR.	
EVALUATOR:	
Print Name:	
Signature:	

926



### SPECIFIC PROBLEM SCORESHEET

### **UNDERGROUND FIREFIGHTING SCENARIO**

# EVALUATOR REFERENCE INFORMATION Spill and Firefighting

TEAM Sudbury Bosin Cobras, KGHM	
COUNTRY Canada 7	
Locate and evaluate spill of Flammable Liquid.	(5) <u>5</u> dre
Apply foam to spill to contain vapours. or the spill	(10) 10 Source
Apply foam indirectly to spill so that no liquid is splashed from containment area. (roll on from in front of spill or arc so that it founce off of an object so that it runs onto the spill)	the spill
Do not disturb foam cover once it is applied.	(10) 😷
Report to Briefing Officer before proceeding past.	(5) <b>3</b> -0
Locate and evaluate the Fire past the spill.	(10) 10
Proceed past Spill Hazard Only After foam cover suitably applie	ed. (10) <u>  6</u>
The Team will identify "HEAT" after they pass the fuel spill. The water header and protect themselves from the heat using a fire header advancing	•
before advancing.	(45)

Recognize heat as a hazard and notify Briefing Officer	(10) 10
Locate water header and test for flow.	(5)
Hose #1	
Roll out fire hose without advancing into the Heat.	(3) 3
Have no kinks in the fire hose	(3)
Connect fire hose to water header.	(3) _3
Install nozzle on fire hose.	(5) 5
Turn on water to charge fire hose.	(5) 5
Set fire nozzle to fog pattern before advancing into heat.  The fire hose with fog will protect the team from the Heat so that they toward the fire, but this will only allow them to explore up to the fire to switch to a fire fighting stream will expose them again to intense he hose will be required. One to protect the team with fog and one to fig team did not use the foam extinguisher at the spill they may still have for fire attack. Merits may be awarded for fire attack with a second fire foam extinguisher, NOT Both.	y can proceed as any attempt eat. A second ht the fire. If a it available
	(10)
2 <sup>nd</sup> Fire Hose used:	
Use a second hose and nozzle for fire attack	(10) <u>O</u> (3) <u>O</u>
Roll out fire hose without advancing into the Heat.	(3)
Have no kinks in the fire hose	(3)
Connect fire hose to water header.	(3)
	210 0 000

Notes:	EAST N
- Tic shows sp	Ill monny into shop and
	trance. Toon reported that
the spill blocked	path and no my to present.
Judge corrected to	dry I'm formed of prop set rosue
Hey are not in 1	nel)
- excellent distrobution	of task.
Lose test on sug.	great practice!
	, Why? (I think hel
suspect led to issue	-?)

### **TOTAL SCORE**

130 AJ

**EVALUATOR:** 

Print Name: Andrew Jorganson

Signature;





### **UNDERGROUND FIREFIGHTING SCENARIO**

# EVALUATOR REFERENCE INFORMATION Spill and Firefighting

TEAM Sudhury Busit Cobrus	<u> </u>
COUNTRY Canada	
Locate and evaluate spill of Flammable Liquid.	(5)
Apply foam to spill to contain vapours.	(10) 10
Apply foam indirectly to spill so that no liquid is splashed from containment area. (roll on from in front of spill or arc so that it is bounce off of an object so that it runs onto the spill)  Do not disturb foam cover once it is applied.	100,200
Report to Briefing Officer before proceeding past.	(5)
Locate and evaluate the Fire past the spill.	(10) 10
Proceed past Spill Hazard Only After foam cover suitably applie	ed. (10)

The Team will identify "HEAT" after they pass the fuel spill. They must locate a water header and protect themselves from the heat using a fire hose with fog spray before advancing.

45

Recognize heat as a hazard and notify Briefing Officer	(10)	
Locate water header and test for flow.	(5)	
Hose #1		
Roll out fire hose without advancing into the Heat.	(3)	
Have no kinks in the fire hose	(3)	
Connect fire hose to water header.	(3)	
Install nozzle on fire hose.	(5)	
Turn on water to charge fire hose.	(5)	
Set fire nozzle to fog pattern before advancing into heat.	(10) TO DB	
The fire hose with fog will protect the team from the Heat so that they can proceed toward the fire, but this will only allow them to explore up to the fire as any attempt to switch to a fire fighting stream will expose them again to intense heat. A second hose will be required. One to protect the team with fog and one to fight the fire. If a team did not use the foam extinguisher at the spill they may still have it available for fire attack. Merits may be awarded for fire attack with a second fire hose or with foam extinguisher, NOT Both.		
Fog curtain not dropped until flames extinguished and heat reduced.	(10)	
2 <sup>nd</sup> Fire Hose used:		
Use a second hose and nozzle for fire attack	(10)	
Roll out fire hose without advancing into the Heat.	(3)	
Have no kinks in the fire hose	(3)	
Connect fire hose to water header.	(3)	
P	2   P a g &	

Install nozzle on fire hose.	(5)
Turn on water to charge fire hose.	(5)
Set fire nozzle to stream pattern before advancing into heat.	(10)
Check for function before advancing.	(5)
Advance and fight fire from behind fog curtain.	(10)
AFFF Extinguisher used: Use a foam extinguisher for fire attack	(10)
Before advancing with the extinguisher to fight the fire, check the extinuction and range by activating a short burst from the extinguisher.	inguisher for (20)
Apply extinguishing agent until the fire is fully extinguished. (stir coastraight stream, scaling bar, etc.)	als with (10)
Confirm that the fire is out (heat, smoke, glowing coals etc.)	(10)
Check extinguished fire with Thermal Imaging Camera	(5) 5
Evaluate air quality:  - Air Quality  CO  O2  Smoke Density	(2) $(2)$ $(2)$ $(2)$ $(2)$ $(2)$ $(2)$ $(3)$ $(3)$
Report to Briefing Officer before leaving shop	(5) 5
Reassess fuel spill when passing.	(5)
Reassess electrical box when passing.	(5)

41

Notes:	
-left hozzle	n tug
	1.70
TOTAL COORT	130 08
TOTAL SCORE	_ tau
EVALUATOR: Mi Ke	Dudar
Print Name: Dwyla	Bulled
Signature: DB/W	
Signature.	<u></u>





### **UNDERGROUND FIREFIGHTING SCENARIO**

## EVALUATOR REFERENCE INFORMATION Spill and Firefighting

TEAM SUPBURY BASIN COBRAS KG-HM		
COUNTRY CANADA 2		
Locate and evaluate spill of Flammable Liquid.	(5) 5	
Apply foam to spill to contain vapours.	(10)	
Apply foam indirectly to spill so that no liquid is splashed from containment area. (roll on from in front of spill or arc so that it is bounce off of an object so that it runs onto the spill)		
Do not disturb foam cover once it is applied.  WALLED THE SPILL INSIDE BERM	(10)	
Report to Briefing Officer before proceeding past.	(5)	
Locate and evaluate the Fire past the spill.	(10)	
Proceed past Spill Hazard Only After foam cover suitably applied. (10) _/O		
The Team will identify "HEAT" after they pass the fuel spill. They must locate a water header and protect themselves from the heat using a fire hose with fog spray before advancing.		
	45	

Install nozzle on fire hose.	(5)
Turn on water to charge fire hose.	(5) 0
Set fire nozzle to stream pattern before advancing into heat.	(10)
Check for function before advancing.	(5)
Advance and fight fire from behind fog curtain.	(10)
AFFF Extinguisher used: Use a foam extinguisher for fire attack	(10) 💍
Before advancing with the extinguisher to fight the fire, check the extinuction and range by activating a short burst from the extinguisher.	inguisher for (20)
Apply extinguishing agent until the fire is fully extinguished. (stir coastraight stream, scaling bar, etc.)	als with (10) <u>[ <i>D</i> _</u>
Confirm that the fire is out (heat, smoke, glowing coals etc.)	(10)
Check extinguished fire with Thermal Imaging Camera	(5) 5
Evaluate air quality:  - Air Quality  CO  O2  Smoke Density	(2) <u>1</u> (2) <u>2</u> (2) <u>2</u>
Report to Briefing Officer before leaving shop	(5) 5
Reassess fuel spill when passing.	(5)
Reassess electrical box when passing.	(5) 5

Notes: EXCELLENT USE OF EC	DUTTP T.K. KESTRECE
ALTHOUGH SOME CONFUSION	RESULTED FROM
PRESUMED SPILL RUNNING	DOWN RAMP AND
KESTRELL CIVING A DIFFERE	NT HEAT VALUE THAN
PROPS WERE SAYING.	
TOTAL SCORE	130 KB
EVALUATOR:	
Print Name: KURBY BUCHANAN	<del></del>
Signature: 12 Bloom	







# INTERNATIONAL MINES RESCUE COMPETITION

### SPECIFIC PROBLEM SCORESHEET

### **UNDERGROUND FIREFIGHTING SCENARIO**

# EVALUATOR REFERENCE INFORMATION Spill and Firefighting

Spill and Firefighting	
TEAM Sudby Basin Cobras.	
COUNTRY Conada 2.	
Locate and evaluate spill of Flammable Liquid.	(5) 5 /
Apply foam to spill to contain vapours.	(10) 10
Apply foam indirectly to spill so that no liquid is splashed from containment area. (roll on from in front of spill or arc so that it bounce off of an object so that it runs onto the spill)	
Do not disturb foam cover once it is applied.  Team walked though spiritured orea.	(10) 0
Report to Briefing Officer before proceeding past.	(5) ?,
Locate and evaluate the Fire past the spill.	(10) 10
Proceed past Spill Hazard Only After foam cover suitably appli	ed. (10) <u>10</u>
The Team will identify "HEAT" after they pass the fuel spill. T water header and protect themselves from the heat using a fire heaf before advancing.	nose with fog spray
Stood fuel this up to reduce risk Cul	Now Louds fire
	1 Page

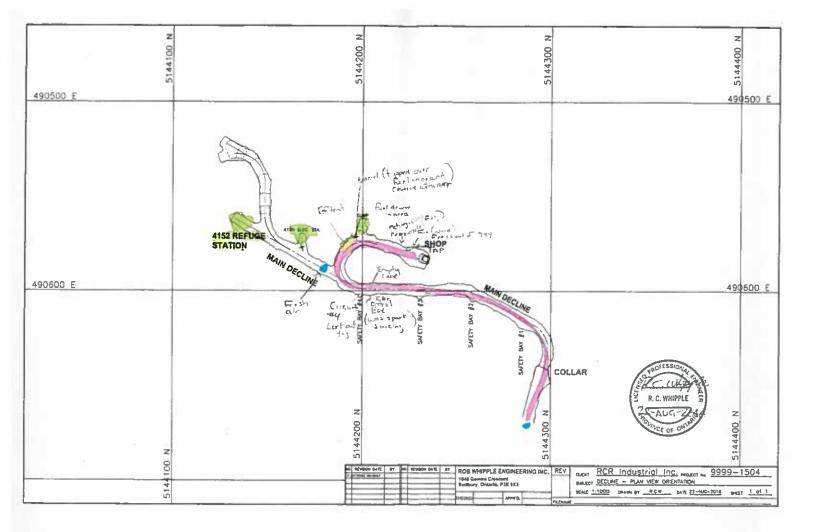
Recognize heat as a hazard and notify Briefing Officer \( 9.37 \)	(10) 10
Locate water header and test for flow.	(5) <u>NAY S</u>
Hose #1 Tracke in Drackon 5940 to adule  Captain that water on Store !  The Sharp image of water from fall  Roll out fire hose without advancing into the Heat.	1 Cot fall.
Have no kinks in the fire hose	(3) 3
Connect fire hose to water header.	(3) 3
Install nozzle on fire hose.	(5) 5
Turn on water to charge fire hose.	(5) 5
The fire hose with fog will protect the team from the Heat so that they toward the fire, but this will only allow them to explore up to the fire to switch to a fire fighting stream will expose them again to intense he hose will be required. One to protect the team with fog and one to fighteam did not use the foam extinguisher at the spill they may still have for fire attack. Merits may be awarded for fire attack with a second fire foam extinguisher, NOT Both.  Fog curtain not dropped until flames extinguished and heat reduced.  2nd Fire Hose used:	as any attempt eat. A second of the fire. If a it available re hose or with
Use a second hose and nozzle for fire attack	(10)
Roll out fire hose without advancing into the Heat.	(3)
Have no kinks in the fire hose	(3)
Connect fire hose to water header.	(3)
Positor of explor - tip hosad pulsed tem 1 year on floor - connect about the 1 lea	local 2/Page

\*

otes:	
Good Use Of TIC - very thore	sigh.
Team very carling.	
	o alba
acost as pour	
	34
TOTAL SCORE	120
VALUATOR:	
rint Name: Soon Dondo	
Signature:	
	217
	4   F

[ANADA	KGHM Sudbuy Operations (Dal)
	joel gacher 14 Chaquast
8.31	BO to table. MATT
8:484	3 Team to briefin Board + BO
8:44	Briefing started.
8:47	Cupt re-rupps 1 tran Questins
8:48	Brieding dance coupt repeats historictions
F:52	Stop time Ismin Time out
8: 309:07	Stop time. 15 min Time out. Time buck on: seset scenerio U/G.
9:10	Capt = DE ten under Or at 9:08. 20+6 to shop.
	Stop at portal to take cond.
9:14	Capt > BO as pertal Low snoke 20 CO Oz MH
	time limit 20 min to main decline to get up cooling area
9:21	Cap + BO down ramp schedy buy & empty cube
	an side of drift & elect Hazzard Lacke of to tagger
	CCT#4, Same TL as last BO reports Elect Hurrand
	to Control group
9:24	across Capt to BO empty cube across from control
	bux on right hand side cube reported to control.
	9(0vp)
9:18	Cap 7 BO main incline cond. clove, 20min TL to
	shop to get to fire 1 establish und tent when
Qin(i	U go past it
9:39	Cap 7 BO - toft there 3 borrels stood the up
4	but form on spill there is heat coming from shop area BO repeats cond five 24 but 38Aiy 20 min TL to fight fix B.O gen permissin
9:42	shop area. ISO repeats cond give, 29th 758/11/
- 1. 4 C	20 min / L to tight tie 15.0 guar permisin
	to proceed bipast spill as it was coated with
9:47.	A F F F
	Coid 28 CO 209 O Tally
95	BO > Cap if fre is out leave hose on for
_ 751	100 / Cap 11 Tre 13 OUT Henre Mose on tos

2)60 7 h h KGHM Sud Operations CANADA BU reports firescene to control group. 9.53. turn around is shop. 9:55 10:01



				Time Under O2: 908a-	der O <sub>2</sub> :	90	200		Briefing Officer: Mat Larose
				Team No.:	-				Date: 1945.25/16 Page   of
Captain:	Captain: Tom Hopkins	Kins		Mine: MTI	ITI				M/R Officer: Welly
Time	Location	Smoke	CO	02	CH,	Team	Time	Location	Report
909-	Surface	١	1	١	1	_	LOmin	Rotal	Under 0, @ 908 am
91200	B. tal	7	20	20.8	0	-	2000	Declin	
919	safety		-	-					Circuit+4) was conting a parting duetty tobbe do more
926	Main Oc.	$\bigcirc$	0	6.0%	0	_	202:2	days	
437	to the	7	206	20.9	0	_	Somin	days	Covered a will from bassed with AFF orgest
246	Shop	7	26	6.9	0	/	20min	surf.	Arestinatisher (off behild. Heatingshop was 23.80 >24"CW
929	Surf	Clea	7				10 min	2030	of 0,0951
1			_				_		
							Ä		
ļ					П				
									Мау '06

Summary  · Worter got into accordent with wall dire! to pallet fire in shop (smote)  · Worter hit divens in same near shop  · Fear directed to go Us, Fight possible fiel fire a wead fire  · Backup bearns were brought in  · Tean under O2 @ 908 am  · Proceeded dawnramp to Main decline intersection  · Doticed a specking/arring cable on a panel @ Safety bay #4  · Lock stagged out the panel (no more arring specking)  · Noticed empty cube arrows safety bay #4  · Continued to Hain Checking intersection, fresh air in this area  · Team proceeded pass ref tent noticed true was leating toward  · Team proceeded pass ref tent noticed true was leating toward  · Team proceeded pass ref tent noticed true was leating toward  · Team proceeded pass ref tent noticed true was leating toward  · Team fifted based + covered the fiel with AFFF extinguishe  · Control group was advised + from proceeded through to the e  of the shop  · Town for cuith hase a norse, fine is out @ 944. Hose + n  (aft on fog.  · Fine extinguisher (eft cuith free crosse. At turn around point  is the shop  · Town proceeded to surf, out of O2 @  · Need backup team to follow up with full on grand, oret  all spon left behind. (hose a norse fine extinguisher in shop)  · Follows with were a pollote, ensure fire in stillant	· Worker hit affects in samp near stop  Team discreted to go Us, Fright possible fire! Fire diseased fire  Backup teams were broughting  Team under Oz @ 908 am  Proceeded dawnramp to Main decline intersection  Doticed a sparking/arring cable on a parel @ safety bay #4  Lock stagged out the possel (no more assing Ispunking)  Difficed empty Subs across safety bay #4  Continued to Hain Oberlin intersection, fresh air in this are  This is considered our cooling point  Team proceeded pass ref tent noticed Fuel was leating toward  Train lifted bareel & covered the firel with AFFF extinguish  (antrol group was advised & from proceeded through to the  of the stop  faught fire with hose a norse, fire is out @ 944. Hose as  (aft on fog  Fire extinguisher (eft with how a norse). Fire is a ground, or re  all care left behind. (hose a norsele fire extinguisher in shoe)
· Learn directed to go U.S., Fight possible fuel Fire & wood fine  · Rackup teams were browntin  · Team under O2 @ 908 am  · Proceeded downramp to Main decline intersection  · Doticed a sparking farring cable on a parel @ safety bay #4  · Lock Hagged out the panel (no more assing lyperking)  · Writed empty Subs across safety bay #4  · Continued to Hain Oberline intersection, fresh air in this area  Team proceeded pass ref tent of noticed fuel was leating toward  · Team lifted based & covered the fuel with AFFF extinguishe  · Control group was advised & team proceeded through to the e  of the shop  · Faught fire with hose another, fire is out @ 944. Hose and  (aft on fog  · Fine extinguisher (aft with presentable. Fit turn around point  is the shop  · Team proceeded to surf, out of 02 @  · Weed brokup team to follow up with full on grand, o ret  all soon left behind, (hose a notale fine extinguish) is shop	· verte hit divens is camp near stop  · Fear directed to go U.S., Fight possible first fire accessed fire  · Backup teams were broughtin  · Team under O2 @ 908 am  · Proceeded dawnramp to Main decline intersection  · Voticea a spacking/arring cable on a paral @ safety bay #4  · Lock stagged out the panel (no more accing lepacking)  · Writised empty subscarrows safety bay #4  · Continued to Hain Oberline intersection, fresh air in this are  This is considered our cooling point  · Team proceeded pass ref tent of noticed fuel was leating toward  · Team lifted backel & covered the fiel with AFFF extinguish  · Control group was advised at from proceeded through to the  of the stop  · Town log  · Fine criticalists (eft with been expected. Fit turn around pour  is the shap  · Team proceeded to surf, out of 02 ©
· Learn directed to go U.S., Fight possible fuel Fire & wood fine  · Rackup teams were browntin  · Team under O2 @ 908 am  · Proceeded downramp to Main decline intersection  · Doticed a sparking farring cable on a parel @ safety bay #4  · Lock Hagged out the panel (no more assing lyperking)  · Writed empty Subs across safety bay #4  · Continued to Hain Oberline intersection, fresh air in this area  Team proceeded pass ref tent of noticed fuel was leating toward  · Team lifted based & covered the fuel with AFFF extinguishe  · Control group was advised & team proceeded through to the e  of the shop  · Faught fire with hose another, fire is out @ 944. Hose and  (aft on fog  · Fine extinguisher (aft with presentable. Fit turn around point  is the shop  · Team proceeded to surf, out of 02 @  · Weed brokup team to follow up with full on grand, o ret  all soon left behind, (hose a notale fine extinguish) is shop	· Worker hit divens is camp near stop  · Fearn directed to go U.S., Fight Dissible first fire a wood fire  · Backup teams were browntin  · Team under O2 @ 908 am  · Proceeded dawnramp to Main decline intersection  · Doticea a sparking/arring cable on a panel @ safety bay #4  · Lock Hagged out the panel (no more assing/specking)  · Didiced empty cube across safety bay #4  · Continued to Hain Oberline intersection, fresh air in this are  This is rensidered our cooling point  · Team proceeded pass ret tent anoticed fuel was leating toward  · Team lifted based & covered the fiel with AFFF extinguish  · Control group was advised & from proceeded through to the  of the stop  · Town tire with hose + noonle, line is out @ 944. Hose +  (aft on fog  · Fire extinguisher (eft with hose + noonle. In is out @ 944. Hose +  (aft on fog  · Fire extinguisher (eft with hose + noonle. The turn gramd por  is the shop  · Town proceeded to surf, out of 02 @
· Fear directed to go UG, Fight Dissible fuel fire a wood fire  · Backup teams were brought in  · Team under O2 @ 908 am  · Proceeded dawnramp to Main decline intersection  · Noticea a sporking/arring cable on a part @ satety bay thy  · Lock stagged out the panel (no more arring spurking)  · Noticea empty Cube arross satety bay thy  · Continued to Main Merlin intersection, fresh air in this area  This is considered our cooling point  · Team proceeded pass not tent a noticeal fuel was leating toward  · Team Interaboral scovered the fuel with AFFF extinguisher  · Control group was advised a team proceeded through to the e  of the shap  · Toward fire with hose a norse, fire is out @ 944. Hose an  Caft on forg  · Fire extinguisher (eft with hose anorse, fire is out @ 944. Hose an  Caft on forg  · Town proceeded to surf, out of 02 @	· Fear directed to go UE, Fight possible fiel fire of wood fire  · Backup teams were broughting.  · Team under O2 @ 908 am  · Proceeded dawnramp to Main decline intersection  · Noticed a sporking/arring cable on a paral @ satety bay #4  · Lock stagged out the paral (no more arring/sporking)  · Noticed empty Suba arrows satety bay #4  · Continued to Main Oberline intersection, fresh air in this are  This is considered our cooling point  · Team proceeded pass ref tent & noticed fuel was leating toward  · Team lifted barrel towered the fuel with AFFF extinguish  · Control group was advised & team proceeded through to the  of the shop  · Town his cuith hase & norder, live is out @ 944. Hose &  Caft on log.  · Fire extinguisher (eft with here expecte. #1 turn around pour  is the shop  · Town proceeded to surf, out of 02 @  · Need backup team to follow up with fuel on grand, ore  all soon left behind. (hose a norde face extinguishes in shop)
Backup teams were brought in  Team under O2 @ 908 am  Proceeded dawnsamp to Main decline intersection  Doticed a sporking/aring cable on a part @ safety bay #4  Lock thought out the panel (no more aring specking)  Noticed empty Cube across safety bay #4  Continued to Main Mecline intersection, fresh air in this accomplished to Hain Mecline intersection, fresh air in this accomplished our cooling point  Team proceeded pass ref tent & noticed fuel was leating toward.  Team lifted bareal & covered the fuel with AFFF extinguished.  Control group was advised & team proceeded through to the earth of the shop.  Taught fire with hose anomale, fire is out @ 944. Hose and Caft on fog.  Fire extinguishes (eft with keep crossile. #1) turn anomal point is the shop.  Town proceeded to surf, out of 02 @  Need barkup team to follow up with fuel on grand, o net all coop left behind. (hose a norse face extinguishes in shop)	Backup teams were browstin  Team under O2 @ 908 am  Proceeded dawramp to Main decline intersection  Voticed a sporking/arcing cable on a paul @ safety bay #4  Lock stagged out the panel (no more assing sporking)  Noticed empty subscarrows safety bay #4  Continued to Hain Mecline intersection, fresh air in this are  This is residented our cooling point  Team proceeded pass ref tent a noticed fuel was leating toward  Team lifted barsel + covered the fuel with AFF extinguish  (antrol group was advised + team, proceeded through to the  of the shap  Taught fire with hose a norde, live is out @ 944. Hose as  (aft on log  Fire extinguishes (aft with hose anorse, live is out @ 944. Hose as  (aft on proceeded to surf, out of 02 @
· Team under Oz @ 908 am  · Proceeded dawnramp to Main decline intersection  · Doticed a sparking farcing cable on a pour (	Team under Oz @ 908 am  Proceeded dawnramp to Main decline intersection  Doticed a sparking arrive cable on a paral @ satisfy bay #4  Lock stagged out the paral (no more accing speaking)  Noticed empty Cube accross satisfy bay #4  Continued to Hain Mecline intersection, fresh air in this are This is considered our cooling point  Team proceeded pass ref. tent a noticed Fuel was leating toward  Team lifted barrel scovered the fire with AFFF extinguish  Control group was advised a team, proceeded through to the  of the shap  Taught fire with hose snowle, fine is out @ 944. Hose so  (aft on fog  Fine extinguishes (aft with some energele. #1 turn around part  is the shap  Town proceeded to suff, out of 02 @
Proceeded dawnsomp to Main decline intersection  Doticed a sporting/arring cable on a parel @ safety bay #4  Lock + tagged out the panel (no more arring sporting)  Noticed empty cube arrows safety bay #4  Continued to Main Merline intersection, fresh air in this area  This is considered our cooling point  Team proceeded pass ref tent noticed fuel was leating toward  Tram lifted based + covered the fiel with AFFF extinguishes  Control group was advised + team proceeded through to the e  of the shop  Town fire with hose a norde, fine is out @ 944. Hose on  (aft on log  Fire extinguisher (eft with processed. ## turn around pair  is the shop  Town proceeded to surf, out of 02 @  Need brokup team to follow up with full on grand, o ret  all soon left behind, (hose a norde face extinguisher in shop)	Proceeded dawnramp to Main decline intersection  Doticed a sporking farring rable on a parel @ safety bay #4  Lock Hagged out the parel (no more accing Isperking)  Difficed empty cube accross safety bay #4  Continued to Hain Oberline intersection, fresh air in this are This is considered our cooling point  Team proceeded pass ref tent I noticed fuel was brating toward  Team lifted bareal toward the fuel with AFFF extinguish  Control group was advised I fear, proceeded through to the of the shop  Faight fire with hose a norse, fire is out @ 944. Hose as  (eft on log  Fire extinguish (eft with the energy - #1 turn around pare is the shop  Town proceeded to surf, out of 02 @
Deticed a sparking/arring cable as a panel @ satety bay #4  Lock Hagged out the panel (no more arring Ispurking)  Noticed empty Cube accross safety bay #4  Continued to Hain Oberline intersection, fresh air in this area  This is considered our cooling point  Team proceeded pass ref tent anoticed fuel was leating toward  Team lifted barrel a covered the fuel with AFFF extinguishe  Control group was advised a team proceeded through to the e  of the shop  Fine extinguishes (eft with here proceeded. The turn anomal point  is the shops  Team proceeded to surf, out of 02 @  Need brokup team to follow up with fuel on grand, o ret  all soon left behind. (hose a norse for extinguisher in shop)	Deticed a sporking arring cable on a part @ Satety bay #4  Lock stagged out the panel (no more arring speaking)  Noticed empty Cube arriver safety bay #4  Continued to Hain Meeline intersection, fresh air in this are This is considered our cooling point  Team proceeded pass ref. tent anoticed fuel was leating toward  Team lifted barsel & covered the fiel with AFFF extinguish  Control group was advised at team, proceeded through to the of the shop  Fine extinguisher (aft with hose a norse, live is out @ 944. Hose as  (aft on log  Fine extinguisher (aft with hose anorse, live is out @ 944. Hose as  (aft on log  Fine extinguisher (aft with hose anorse) and of O2 @  Need broken team to follow up with fuel on grand, ore all soon (aft behind, (hose anorse) for extinguisher in shop)
· Lock + tagged out the panel (no more assing speaking) · Writed empty Subs across safety bay #4  · Continued to Hain Oberline intersection, fresh air in this area  This is considered our cooling point  · Team proceeded pass ref tent anoticed fuel was leating toward  · Team lifted based + covered the fiel with AFF extinguishe  · Control group was advised + team proceeded through to the e  of the shop  · Town the with hose + norse, fine is out @ 944. Hose + n  (aft on fog.  · Fire extinguishes (aft with towards), fine is out @ 944. Hose + n  (aft on fog.  · Form proceeded to surf, out of 02 @  · Need brokup team to follow up with fuel on grand, o ret  all soon left behind. (hose a norse), the extinguisher in shop)	· Lock tagged out the panel (no more assing specking) · Writed empty Cube accross safety bay they · Continued to Hain Meelin intersection, fresh air in this are This is considered our cooling point · Team proceeded pass ref tent anoticed fuel was leating toward · Team lifted based & covered the fiel with AFFF extinguish · Control group was advised & team proceeded through to the of the shop · Town fire with hose & norse, fire is out @ 944. Hose &  (aft on fog · Fire extinguisher (aft with free meerle. Fit turn around pour is the shop · Town proceeded to surf, out of 02 @  · Need backup team to follow up with fuel on grand, ore all soon left behind. (hose & norse for extinguisher in shop)
· Writed empty Subs accross safety boy #44  · Continued to Hain Oberline intersection, fresh air in this according to Team proceeded our cooling point  · Team proceeded pass ret tent I noticed Fuel was leating toward  · Team lifted barsel toward the fire with AFFF extinquishe  · Control group was advised a team, proceeded through to the e  of the shop  · Fire extinguisher (aft with hose + norse, fire is out @ 944. Hose + n  (aft on log  · Fire extinguisher (aft with hose + norse). At turn grand point  is the shop  · Team proceeded to surf, out of O2 @  · Need barkup team to follow up with full on grand, o ret  all soon left behind. (hose o norse). Fire extinguisher in shop)	· Noticed empty Subs accross safety bay #4  · Continued to Hain Oberline intersection, fresh air in this are  This is considered our cooling point  · Team proceeded pass ref tent a noticed fuel was leating toward  · Trans lifted barrel & covered the fuel with AFF extinguish  · Control group was advised & team proceeded through to the  of the shap  · Fuent fire with hose & norse, live is out @ 944. Hose &  (aft on log  · Fire extinguisher (aft with free emptile. #1 turn around por  is the shap  · Town proceeded to surf, out of 02 @  · Need barrage team to follow up with fuel on grand, ore  all soon left behind. (hose & norse for extinguish in shap)
Continued to Hair Oberline intersection, fresh air in this area  This is considered our cooling point  Team proceeded pass ref tent I noticed Fuel was leating toware  Tram littled barrel & covered the fuel with AFFF extinguishe  (antrol group was advised & team proceeded through to the e  of the shop  Taught fire with hose & norse, fire is out @ 944. Hose & n  (aft on log  Fire extinguisher (aft with presentable. Fit turn around point is the shop  Town proceeded to surf, out of 02 @  Need barkup team to follow up with fuel on grand, o ret  all soon left behind. (hose a norse of fire extinguisher in shop)	· Continued to Main Merline intersection, fresh air in this are  This is considered our cooling point  Team proceeded pass ref. tent & noticed Fuel was leating toward  Team lifted based & covered the fiel with AFFF extinguish  Control group was advised & team proceeded through to the  of the shop  Faught fire with hose & norde, fire is out @ 944. Hose &  Coft on fog  Fire extinguisher (aft with for a roozele. Fit turn around por  is the shop  Toam proceeded to surf, out of 02 @  Need brokup team to follow up with full on grand, ore  all soon left behind. (hose & norde fare extinguisher in shop)
This is considered our cooling point  Team proceeded pass ref. tent I noticed Fuel was leating toward  Team littled barrel & covered the fiel with AFFF extinguishes  (antrol group was advised & team proceeded through to the e of the shop  Fught fire with hose + nords, live is out @ 944. Hose + n  (aft on fog  Fire extinguishes (aft with & correctle. Fit turn around point is the shop  Town proceeded to surf, out of 02 @  Need brokup team to follow up with ful on grand, o ref all soon left behind. (hose a norse for extinguishes in shop)	This is considered our cooling point  Team proceeded pass ref. tent & noticed Fuel was leating toward  Team lifted barrel + covered the fiel with AFF extinguish  Control group was advised + team proceeded through to the of the shop  Fught fire with hose + notice, live is out @ 944. Hose +  (aft on log.  Fire extinguisher (aft with preserved - FF) turn around por is the shop  Town proceeded to surf, out of 02 @  Need brokup team to follow up with full on grand, ore all soon left behind. (hose + notice the extinguisher in shop)
Team proceeded pass ref tent & noticed Fuel was leating toward  Team lifted barrel & covered the fuel with AFFF extinguishe  (entrol group was advised & from proceeded through to the e  of the shop  Fought fire with hose a norse, fire is out @ 944. Hose an  (aft on log  Fire extinguishes (aft with presentable. Fit turn around point  is the shop  Town proceeded to surf, out of 02 @  Need barkup team to follow up with fuel on grand, o ret  all soon left behind. (hose a norse for extinguisher in shop)	Team proceeded pass ref. tent & noticed Fuel was leating toward.  Team littled barrel & covered the fire! with AFFF extinguish  Control group was advised & team proceeded through to the of the shop  Faught fire with hose & norse, fire is out @ 944. Hose & laft on log.  Fire extinguisher (eft with & corresponde. Fit turn around por is the shop)  Toam proceeded to surf, out of 02 @  Verd barray team to follow up with full on grand, ore all soon left behind. (hose a norse for extinguisher in shop)
· Train lifted borsel + covered the fiel with AFFF extinguishe of the group was advised + team proceeded through to the e of the shop  · Faight fire with hose + notice, live is out @ 944. Hose + n (aft on log.  · Fire extinguishes (aft with hose + nozzle. At turn grams point is the shop.  · Toam proceeded to surf, out of 02 @  · Weed broken team to follow up with full on grand, o ret all soon (aft behind. (hose + nozzle five extinguishes in shop)	Translifted borsel & covered the fiel with AFF extinguish of Central group was advised & team, proceeded through to the of the shop  Faught fire with hose & notice, fire is out @ 944. Hose & Caft on log.  Fire extinguisher Ceft with Low + 10026. Fit turn around por is the shop.  Town proceeded to surf, out of 02 @  Need backup team to follow up with ful on grand, ore all soon Ceft behind. (hose a 10026. Fire extinguisher in shop)
· Control group was advised & team proceeded through to the e of the shop · Fire extinguisher (eft with presented. Fit turn around point is the shop · Toam proceeded to surf, out of 02 ©  · Need brokup team to follow up with ful on grand, o net all soon left behind. (hose + norse of Fire extinguisher in shop)	· Control group was advised & team proceeded through to the of the shop  · Fire extinguisher (eft with pre-smoother FI) turn around por is the shop  · Toam proceeded to surf, out of 02 @  · Need brokup team to follow up with full on grand, ore all soon left behind. (hose a norse to fine extinguisher in shop)
Taught fire with hose + norse, live is out @ 944. Hose + ne (aft on log.  Fire extinguisher (aft with pre- + norsele. Fit turn gramd point is the shop.  Tourn proceeded to surf, out of 02 @  Need broken team to follow up with full on grand, o ret all soon left behind. (hose + norsele face extinguisher in shop)	Taught fire with hose + norse, fire is out @ 944. Hose + a Caft on log.  Fire extinguisher (aft with 1 - a + norse At turn grams pour is the shop.  Toam proceeded to surf, out of 02 @  Need brokens team to Follow up with full on grams, ore all seen left behind. (hose + norse le Fire extinguisher in shop)
Faught fire with hose + notice, live is out @ 944. Hose + nelton log.  Fire extinguisher (aft with the emperie. At turn around point is the shop.  Toam proceeded to surf, out of 02 @  Verd trackup team to Follow up with full on grand, o net all soon (aft behind. (hose + notice) for extinguisher in shop)	Faught fire with hose + norde, live is out @ 944. Hose + Ceft on log.  Fire extinguisher (eft with 1 - extrossile - FA turn around pour is the shop.  Toam proceeded to surf, out of 02 @  Veed traking team to follow up with full on grand, ore all soon left behind. (hose + norde tage extinguisher in shop)
· Fire extinguisher (eft with some enough . Fit turn around point is the shop. · Tourn proceeded to surf, out of 02 @  · Need broken team to follow up with ful on grand, o ret all some left behind. (hose a norsele fine extinguisher in shop)	· Fire extinguisher (eft with presentable. Fit turn around por is the shop. · Tourn proceeded to surf, out of 02 @  · Need brokup team to follow up with ful on grand, ore all soon left behind. (hose + norse to tinguisher in shop)
· Fire extinguisher (eft with free + 100226 - 47) turn around point is the shops. · Tourn proceeded to surf, out of 02 @  · Need backup team to follow up with full on grand, o ret all seen Ceft behind. (hose a noze (efter extinguisher in shop)	· Fire extinguisher (eft with pre-possed - FA turn around por is the shop. · Tourn proceeded to surf, out of 02 @  · Verd backup team to follow up with ful on grand, ore all seen left behind. (hose a norse to Ene extinguisher in shop)
· Tour proceeded to surf, out of 02 @  · Need brokup team to follow up with ful on grand, o ret all spen left behind. (hose a norsele five extinguisher in shop)	· Tour proceeded to surf, out of 02 @  · Need brokup team to follow up with ful on grand, ore all spen left behind. (hose a norse le time extinguisher in shop)
· Verd brokup team to follow up with ful on grand, o ret all soon left behind. (hose a norsele fine extinguish in shoe)	· Verd brokup team to follow up with ful on grand, ore all soon left behind. (hose + norselo time extinguisher in shop)
· Need brokup team to follow up with ful on grand, o net all soon Ceft behind. (hose a nozale fine extinguish in shop)	· Need brokup team to Follow up with ful on grand, one all soon left behind. (hose a nozz (o Fire extinguish in shop)
· Need backup team to follow up with ful on grand, o ret all spon left behind. (hose a nozale, time extinguish in shap) · Follow with wood pallets, ensure fire is stillent	· Need brokup team to follow up with ful on grand, one all spor left behind. (hose + norsele, fine extinguish in shop)
· Need brokup team to Follow up with ful on grand, o net all gon left behind. (hose a nozzlo, fine extinguish in shop) · Follow with wood pallets, ensure fire is stillent	· Need brokup team to follow up with ful on grand, one all gon left behind. (hose a nozale, time extinguisher in shop)
all spon left behind. (hose a norselective extinguish in shop)  o Follow with wood pallots, ensure fire is stillent	all gen left behind. (hose a nors leftie extinguish in shop)
· Follow with wood pallets, ensure fire is still out	
	of follows with wood pollote ensure fire is dillout
	The state of the s



### **Team Assignment** (for the Briefing Officer)

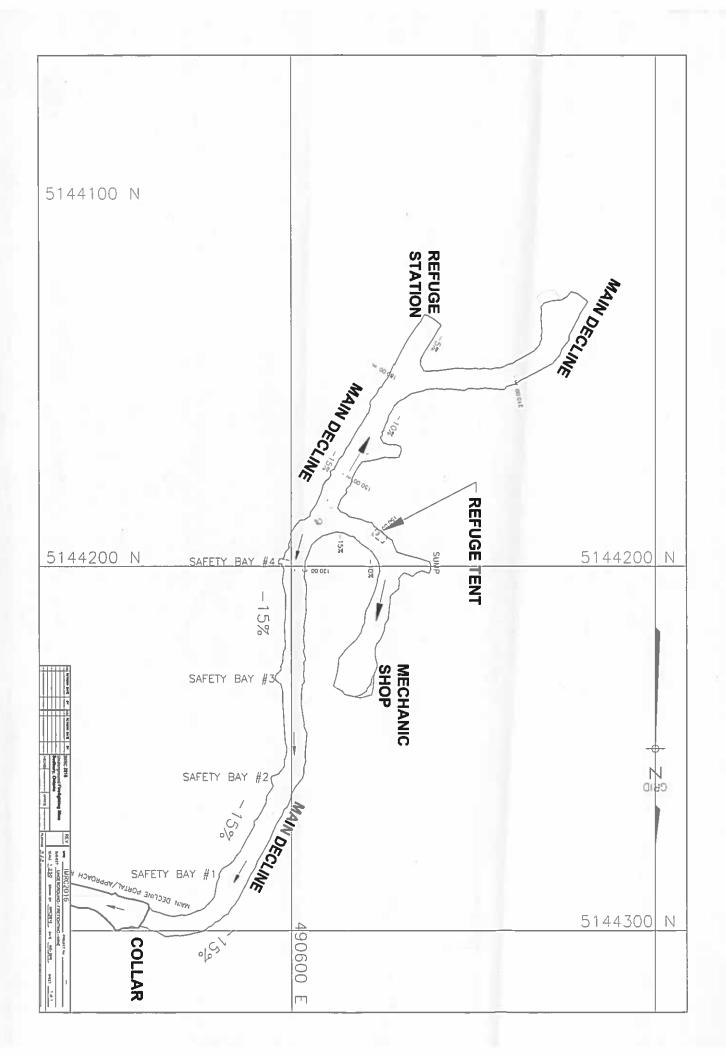
The Incident Command Resource Group has been assembled because a fire was reported by a worker in the shop area. He and all other underground personnel are out of the mine.

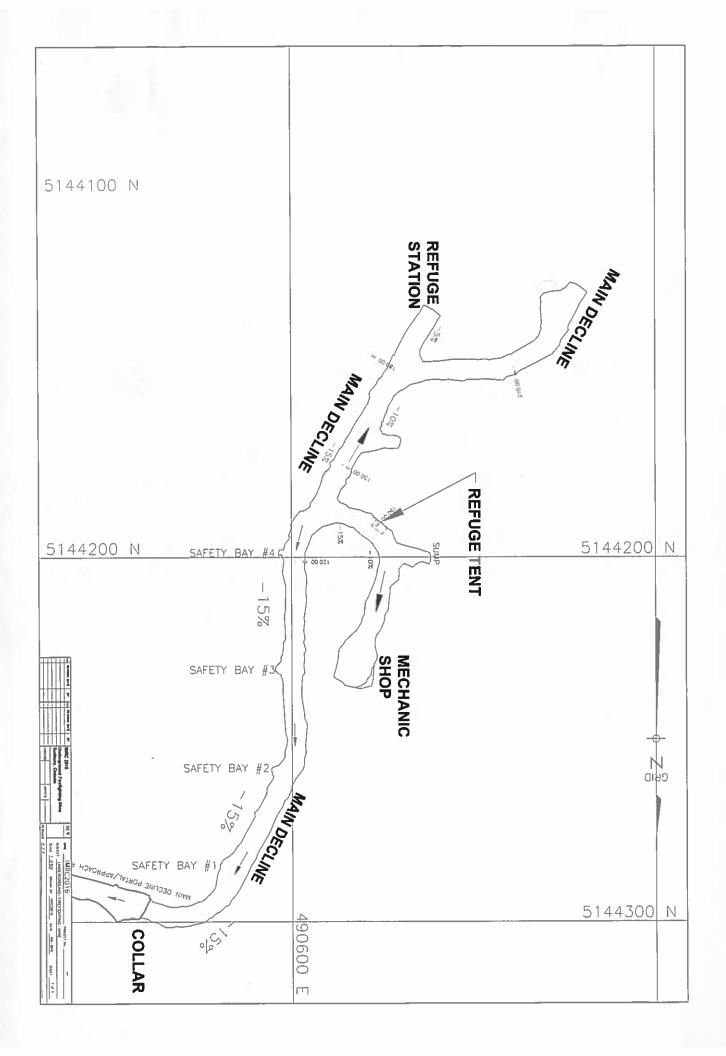
#### The information we have is:

- The driver encountered smoke and lost control of his vehicle on the ramp.
- He reported that he hit several things along the ramp including two drums of fuel that are now leaking, before he came to rest in the shop.
- There is a small fire near some wooden pallets in the shop. He did not attempt to extinguish it.
- He has come to surface and been sent to hospital due to smoke inhalation.

#### Your assignment is to:

- Collect all the information you require from the Command Representative and develop a Plan of Action for your team to complete this assignment.
- Have Command review and approve your plan of action, you will address the team and relay the plan of action to them. You will then remain on surface and act as a contact person for the team.
- Prepare a Mine Rescue Team and have them locate and extinguish the fire.
  The team is to advise you of any hazards that they encounter and make
  those hazards safe before going past them. The team will wear appropriate
  breathing apparatus as protection from the known hazard of smoke and
  atmospheric contaminants.
- You are to establish a destination with the team and a reasonable time for them to reach it. No destination shall be passed without establishing a new destination and time limit.





Into Ave mit ASF minercuated Pet. host paint Freshair base 2st. Ref sta Cond RUT Word or atailand FC. hose, no 22 le TIC, AFF extinguida Ca - stroden bastet IJ Co Shop TL 200 WI electrical hazard lock off Fire hose on floor on left grand Tarps un wall are not port of problem people 116 gods

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Let 44 (Lockstrs)

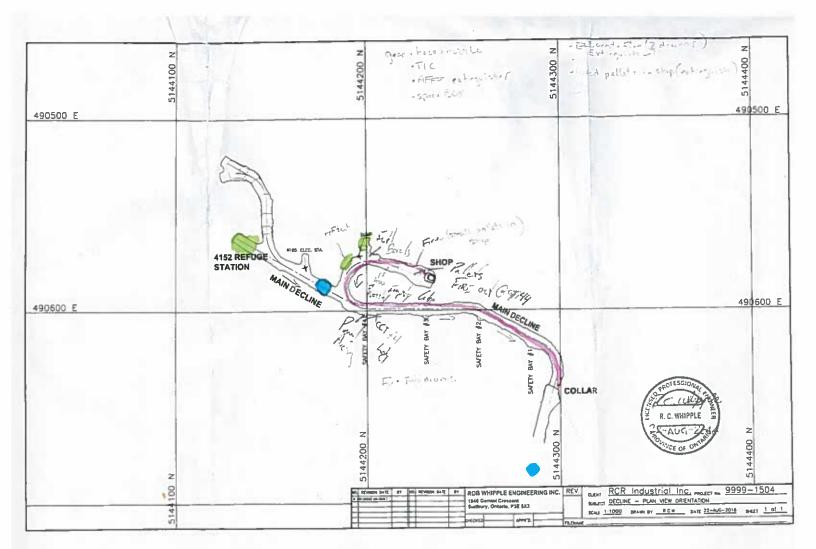
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Captain's Report	Auxillary Equipment Fire flahting equipment	s >			Time	į								/ Report			1	15 ) 2		3.						ii S	
Ca	Auxillary Fire fight	Stretcher	Level Plans	essures	Time									Destination	į		F/12	4 6			Silver	3	1				
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### APPENDIX C - FIRST AID SCENARIO





# INTERNATIONAL MINE RESCUE COMPETITION 2016

MASTER

Page 1 Merits Sub Total \_\_\_\_\_\_

TEAM: (ANADA 2 (SUDRILLY BASIN) #5 ANG 23/16 @ 1030 AM	\
<u>Casualty - #1</u> : A female patient is trying to extinguish the fire. The mine rescue to finds her standing by the burning storage box located in front of the drill. The patient confused and will not obey commands. She refuses to put a fire extinguisher down an shouting that she cannot hear. Blood is draining from her right ear and her left han burned.	nt is ıd is
Merits Poi	ints
SCENE SURVEY	
1. <u>Assess Hazards</u> If the team extinguishes storage box fire they will have demonstrated assessing and correcting hazards.	2 3 g
Judge's Comments: - captain kept checking	
2. Use examination gloves	
Examination gloves must be used before contact with patient occurs 0 1	23
Gloves must be removed and disposed of properly	2 3
Judge's Comments: - remained gloves but one set left on scene	

3. The team members must identify themselves and ask the patie	ent if she wants help.	0 123
Judge's Comments: 7 identified but did n	wt ask permi	1510
Captain did ask permis	Sion	
Assess Breathing		
1. The team must assess the airway.		0 1 23
To assess the airway the team should talk to the patient. The patientiating there is a good airway.	ient will be able to speak c	learly
Judge's Comments:		
Assess Circulation		
1. The team must assess circulation		
To assess circulation teams must check;		
Pulse		0 1 23
Skin Condition		0)1 2 3
Skin Temperature	(	0123
Judge's Comments:	D assessed	
	1	
	Page 2 Merits Subtotal	8

Rapid Body Survey	
Teams must check;	
1. The head and neck	0 1 2(3)
Judge's Comments:  - checked; assessed & hold in espine not regict)	<u>(c-spir</u>
2. The chest	0 1(2)3
Judge's Comments: - assessed aftertreatment of hard	
3. The abdomen	0 1 2 3
Judge's Comments: - checked after hand treatment	
4. The pelvis and buttocks  Judge's Comments:  - Abouteduller hand froatment	0 1(2)3
- MACHINA TIPOLINIENT	
5. The legs	0 123
Judge's Comments: - checked ofter treatment of hand	

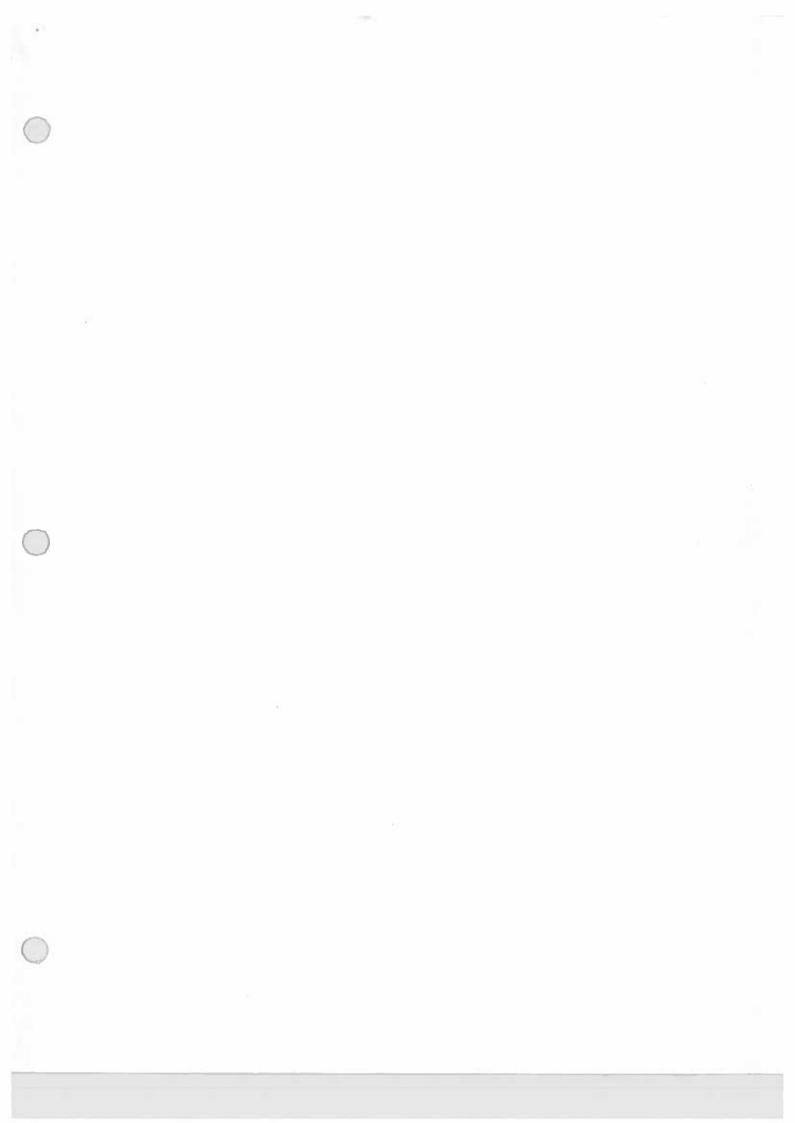
Page 3 Merits Subtotal

	Page 4
6. The shoulders and arms.	0 1/2)3
Judge's Comments:  - checked after hand treatment	ii
Secondary Assessment The team must obtain a complete history of the patient by using SAMPLE.	
1. Signs and Symptoms What the patient can tell you. What the first aider can see.	0 1 23
Judge's Comments: -hand & ear	
2. Allergies Is the patient allergic to any medications or anything else?	0 1 2(3
Judge's Comments:	28
3. Medication Is the patient taking any medications?	0 1 23
Judge's Comments:  -asked	
4. Pertinent Medical History  Does the patient have any medical history the teams should know about?	0 1 2(3)
Judge's Comments:	N.
Page 4 Merits Subtot	ral 14

	Page 5
5. Last Oral Intake What and when did the patient last eat?	0 1 23
Judge's Comments:	
6. Events leading to the Injury/Illness What were the events that led to the incident?	0 1 23
Judge's Comments:	
7. To treat for shock teams must;	
Reassure patient	0 1 23
Keep patient warm	0 1 2(3)
Keep patient at rest	0 1 2(3)
Judge's Comments: - sat dawn, blanket provided	
Treatment of Injuries	
1. Apply Dressing to Right Ear Teams must apply dressing lightly. Blood must be able to drain.	<u>(0)</u> 1 2 3
Judge's Comments:  -not treated	
Page 5 Meri	ts Subtotal

2. Apply burn dressing to left hand	0(1)23
Teams must not remove anything stuck to the burn. Teams must use water gel sterile burn	n
dressings.	
Judge's Comments:	
dressing though it was provided	11 N
1 as a Hard it as a sidel	
aressing Inbugh ITwas provided	
3. Apply bandage to left hand	
Sterile bandage must be applied lightly to hold dressing in place	0 1 2(3)
Judge's Comments:	
4. Position patient to allow blood to drain from ear	0(1)23
Judge's Comments:	
- did not filt head to right to all	00
Judge's Comments:  - did not tilt head to right to alle  - did not tilt head to right to alle  - did down 28min mark u  laid down	
for drainage until 28min mark	Shen
laid down	
5. Reassure until emergency services arrive	0 1 2(3)
	0
Judge's Comments:	
- hangin there well take rure of you	<del></del>
6. Monitor until emergency services arrive	0128)
Judge's Comments	
Judge's Comments: - did not leave alone. three sets of vita	2/5
	1.1
Page 6 Merits Subtotal	- []
· · · · · · · · · · · · · · · · · · ·	

7. Fill out casualty care report with the following information	
Date	0 23
Time	0 1 2(3)
Team number (identity)	①123
Location	0123
Patient's Name	012③
Vital Signs	0123
Treatment	<b>0</b> 1 2 3
Injury Location on Body Outline	0 1 23
Judge's Comments: -no date, teamed, location or treatment	+ documented
8. Rough Handling Deductions	Minus 1 2 3 4 5
Judge's Comments:	
Page 7 Me Page 7 Patient #1 Total Merits less Total Demerits	erits Subtotal 12 Total Score 78



# INTERNATIONAL MINE RESCUE COMPETITION 2016 FLENECH

TEAM: CONODA 2 (SUDRURY RASID) 23 Duc,	2016.
<u>Casualty - #1</u> : A female patient is trying to extinguish the fire. The mine rescut finds her standing by the burning storage box located in front of the drill. The parameter confused and will not obey commands. She refuses to put a fire extinguisher down shouting that she cannot hear. Blood is draining from her right ear and her left burned.	ne team ntient is n and is
Merits	Points
SCENE SURVEY	
1. Assess Hazards If the team extinguishes storage box fire they will have demonstrated assessing and correct hazards.	0 1 23 ting
Judge's Comments:  Put FIRE OUT, PROMOCIO	
2. Use examination gloves	
Examination gloves must be used before contact with patient occurs	0123
Gloves must be removed and disposed of properly	0①23
Judge's Comments:	
Page 1 Merits Sub Total	7_

udge's Comments:	
ssess Breathing	
. The team must assess the airway.	0123
to assess the airway the team should talk to the patient. The patient will be adicating there is a good airway.	e able to speak clearly
udge's Comments:	
TALL TO PATEL	
ssess Circulation	
. The team must assess circulation	
o assess circulation teams must check;	
ulse	0 1 2(3
kin Condition	<u> </u>
kin Temperature	①1 2 3
udge's Comments:	
SHID COUD & TEMP NOT CHECKUD	12

Rapid Body Survey	
Teams must check;	
1. The head and neck	0 1 23
Judge's Comments:	
2. The chest	0 1 2 3
Judge's Comments:	
3. The abdomen	0 123
Judge's Comments:	
4. The pelvis and buttocks	0 1/2 3
Judge's Comments:	
5. The legs	0 123
Judge's Comments:	

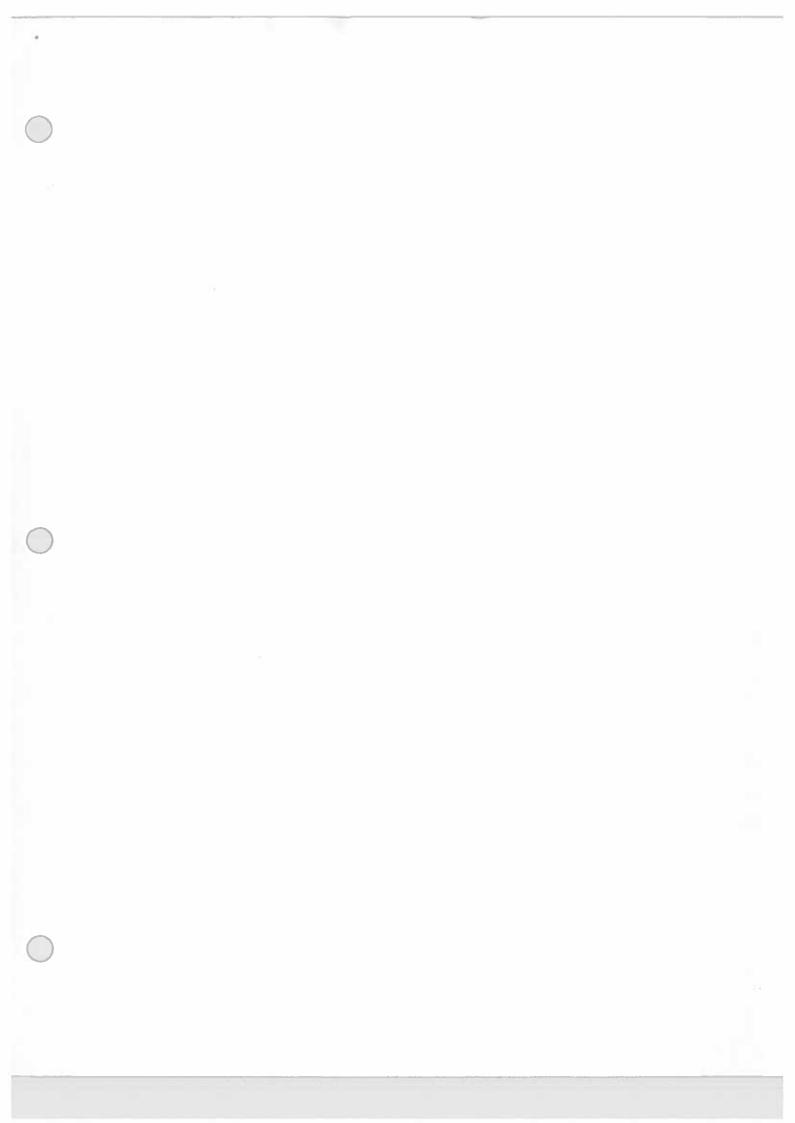
	Page 4
6. The shoulders and arms.	0 (1/2)3
Judge's Comments:	
(475	2
Secondary Assessment The team must obtain a complete history of the patient by using SAMPLE.	
1. Signs and Symptoms What the patient can tell you. What the first aider can see.	0 1 23
Judge's Comments:	
2. Allergies Is the patient allergic to any medications or anything else?	0 1 2/3
Judge's Comments:	
3. Medication Is the patient taking any medications?	0123
Judge's Comments:	
4. Pertinent Medical History  Does the patient have any medical history the teams should know about?	0 1 23
Judge's Comments:	02

5. Last Oral Intake What and when did the patient last eat?	0 1 23
Judge's Comments:	
6. Events leading to the Injury/Illness What were the events that led to the incident?	0 1 23
Judge's Comments:	
7. To treat for shock teams must;	
Reassure patient	0 1 23
Keep patient warm	0123
Keep patient at rest	0123
Judge's Comments:	
Treatment of Injuries	
1. Apply Dressing to Right Ear Teams must apply dressing lightly. Blood must be able to drain.	<u>O</u> 1 2 3
Judge's Comments:	_

2. Apply burn dressing to left hand Teams must not remove anything stuck to the burn. Teams must use water gel sterile burn dressings.	0023
Judge's Comments:  NO BADD DRESSERT, FENERS TOGOTHUS.	
3. Apply bandage to left hand Sterile bandage must be applied lightly to hold dressing in place	0 1 23
Judge's Comments:	
4. Position patient to allow blood to drain from ear	0(1)23
Judge's Comments:  NO TICTENT OF MERCO, PUT IN RECOURT.  POSITION RELID.	
5. Reassure until emergency services arrive	0123
Judge's Comments:	
- SPIPT DOB	
6. Monitor until emergency services arrive	0123
Judge's Comments:  CHECKED SUST. AND DURING. AND OF PARTURE.	
Page 6 Merits Subtotal _	11

Judge's Signature: \_\_

66



## INTERNATIONAL MINE RESCUE COMPETITION 2016

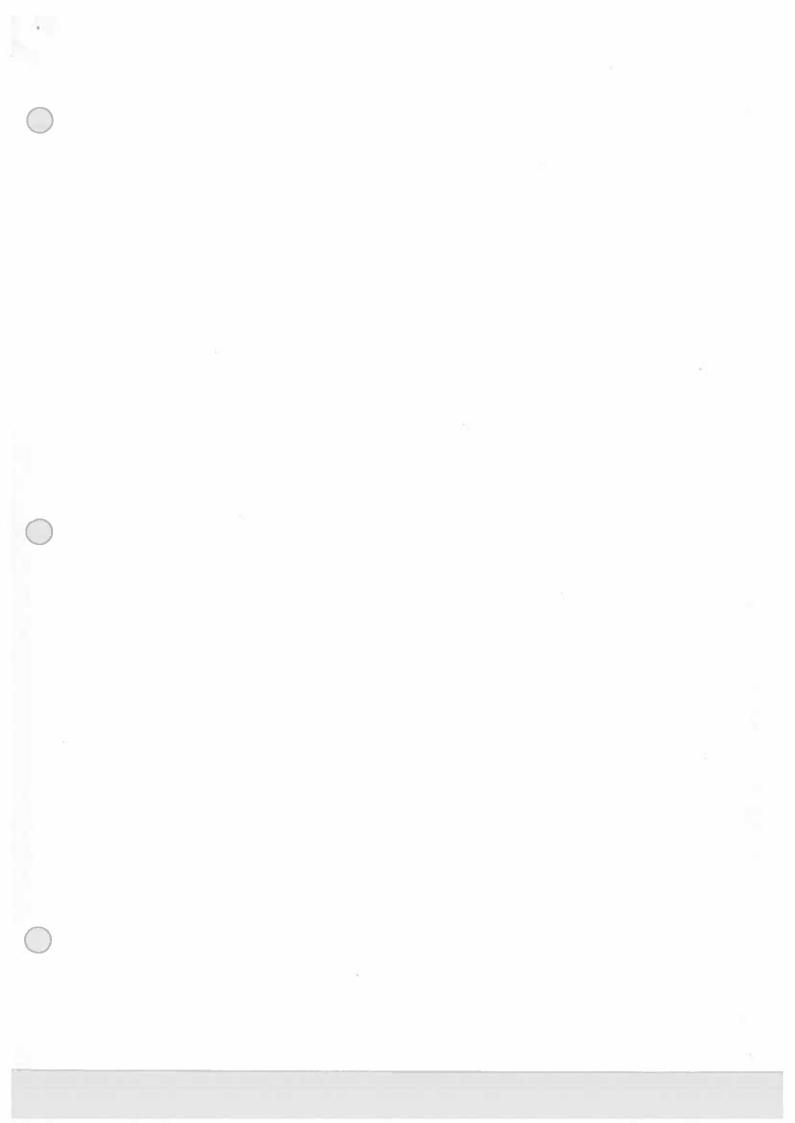
TEAM: (anada (Sudbury Basin)	
Casualty - #1: A female patient is trying to extinguish the fire. The mine resc finds her standing by the burning storage box located in front of the drill. The p confused and will not obey commands. She refuses to put a fire extinguisher down shouting that she cannot hear. Blood is draining from her right ear and her left burned.  Merits	atient is n and is
SCENE SURVEY	LOINES
1. Assess Hazards If the team extinguishes storage box fire they will have demonstrated assessing and correct hazards.	0 1 2/3 cting
Judge's Comments: Captair double check	
2. Use examination gloves	
Examination gloves must be used before contact with patient occurs	0 1 2(3)
Gloves must be removed and disposed of properly	0123
Judge's Comments:	
Page 1 Merits Sub Total _	7

3. The team members must identify themselves and ask the patient if she wants help.	0 1/2/3
Judge's Comments:	
Assess Breathing	
1. The team must assess the airway.	0 1 2(3)
To assess the airway the team should talk to the patient. The patient will be able to speak indicating there is a good airway.	clearly
Judge's Comments:	
	•
Assess Circulation	
1. The team must assess circulation	
To assess circulation teams must check;	
Pulse	012
Skin Condition	<u>(</u> 0 1 2 3
Skin Temperature	<u>@</u> 1 2 3
Judge's Comments:	
Page 2 Merits Subtotal	8

Rapid Body Survey			
Teams must check;	34		
1. The head and neck			0 1 23
Judge's Comments:	II. SAM	La No.	
2. The chest			0 1 2 3
Judge's Comments:	done	late	8.
3. The abdomen			0 1 2 3
Judge's Comments:	done	lote	
4. The pelvis and buttocks			0 1 6 3
Judge's Comments:	d.ne	late	0123
5. The legs			0 1(2)3
Judge's Comments:	done	late	

	Page 4
6. The shoulders and arms.	0 1/2 3
Judge's Comments:	
Secondary Assessment	
The team must obtain a complete history of the patient by using SAMPLE.  1. Signs and Symptoms What the patient can tell you. What the first aider can see.	0 1 2(3
Judge's Comments:	
2. Allergies Is the patient allergic to any medications or anything else?  Indee's Comments:	0123
Judge's Comments:	v.
3. Medication Is the patient taking any medications?	0123
Judge's Comments:	
4. Pertinent Medical History Does the patient have any medical history the teams should know about?	0 1 2(3)
Judge's Comments:	
Page 4 Merits Subto	tal 4

2. Apply burn dressing to left hand Teams must not remove anything stuck to the burn. Teams must dressings.	t use water gel sterile burn
Judge's Comments:	y Name
3. Apply bandage to left hand Sterile bandage must be applied lightly to hold dressing in place	e 0 1 23
Judge's Comments:	
4. Position patient to allow blood to drain from ear	0 (1)2 3
Judge's Comments:	
5. Reassure until emergency services arrive	0 1 23
Judge's Comments:	
6. Monitor until emergency services arrive	0 1 2 3
Judge's Comments:	
	Page 6 Merits Subtotal



#### INTERNATIONAL MINE RESCUE COMPETITION 2016

TEAM: KGHM Canada #4.
Casualty - #1: A female patient is trying to extinguish the fire. The mine rescue team finds her standing by the burning storage box located in front of the drill. The patient is confused and will not obey commands. She refuses to put a fire extinguisher down and is shouting that she cannot hear. Blood is draining from her right ear and her left hand is burned.  Merits Points
SCENE SURVEY
1. Assess Hazards If the team extinguishes storage box fire they will have demonstrated assessing and correcting hazards.
Judge's Comments: Captuin fellow-up charles tol-box
2. Use examination gloves
Examination gloves must be used before contact with patient occurs  0 1 2/3
Gloves must be removed and disposed of properly ( optain Proper dispose 0123
Judge's Comments: We intie ut on slove
Coptin pat or glass when assistory
Page 1 Merits Sub Total

3. The team members must identify themselves and ask the patient if she w	vants help. 0 1 2 3
Judge's Comments:	
Assess Breathing	
1. The team must assess the airway.	0128
To assess the airway the team should talk to the patient. The patient will be indicating there is a good airway.	able to speak clearly
Judge's Comments: Jalked to pt. on	1214-21
Assess Circulation	
1. The team must assess circulation	
To assess circulation teams must check;	
Pulse	0126
Skin Condition	0123
Skin Temperature	0123
Judge's Comments:	
Page 2 M	erits Subtotal

# Rapid Body Survey Teams must check; 1. The head and neck / Palpet J. 0128 Judge's Comments: 0123 2. The chest Judge's Comments: Palpet-w. 0123 3. The abdomen Palpets Judge's Comments: 4. The pelvis and buttocks 0 1 2/5 Judge's Comments: P-1 pet J 0125 5. The legs palpotted + I movement. Judge's Comments:

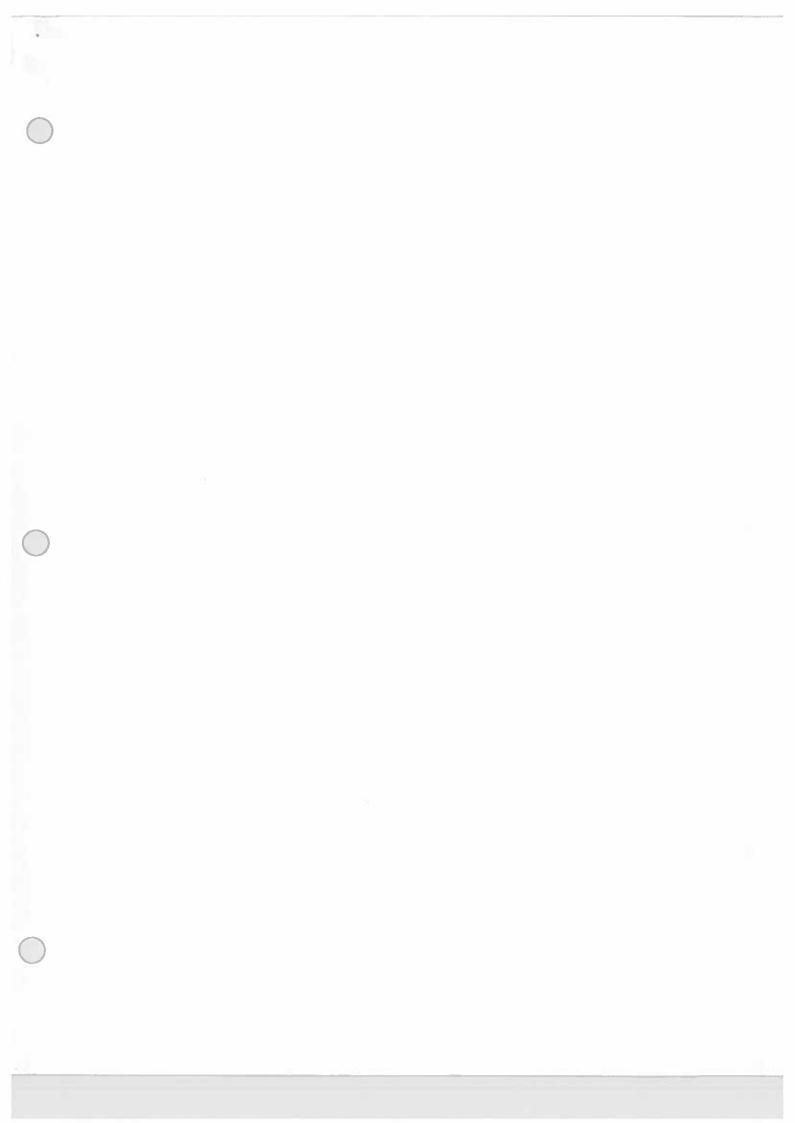
6. The shoulders and arms.	Page 4
Judge's Comments:	012 <del>2</del>
Secondary Assessment The team must obtain a complete history of the patient by using SAMPLE.	
1. Signs and Symptoms What the patient can tell you. What the first aider can see.	0123
Judge's Comments:	muss.
2. Allergies Is the patient allergic to any medications or anything else?  Judge's Comments:	01239
3. Medication  Is the patient taking any medications?  Judge's Comments:	0 1 2/9
Pertinent Medical History  Does the patient have any medical history the teams should know about?  Sudge's Comments:	0 1 2 <b>3</b>
Page 4 Merits Subtota	al

	Page 5
5. Last Oral Intake What and when did the patient last eat?	0128
Judge's Comments: Sand with Tother & 1 Toc	v e5
6. Events leading to the Injury/Illness What were the events that led to the incident?	0 1 23
Judge's Comments:  As. ( ) ( what hoppen - )	
7. To treat for shock teams must;	
Reassure patient / Lego-tod(5.	0 1 2/3
Keep patient warm _ used blanket	0 1 2 <i>/\$</i> 9
Keep patient at rest - Satting-Sapin	01232
Judge's Comments:	
Treatment of Injuries	
1. Apply Dressing to Right Ear Teams must apply dressing lightly. Blood must be able to drain.	0123
Judge's Comments: N.J. 4(cata)	
	1

Page 5 Merits Subtotal \_\_\_\_\_

2. Apply burn dressing to left hand Teams must not remove anything stuck to the burn. Teams must use water gel sterile burn dressings.	0163
Judge's Comments:  6 case rolls for busine	
3. Apply bandage to left hand Sterile bandage must be applied lightly to hold dressing in place	0 1 <b>2/3</b>
Judge's Comments:  Roller 9 auge to secure in place	2
4. Position patient to allow blood to drain from ear	0123
Judge's Comments: Position in (ccosor @ 28 min	
5. Reassure until emergency services arrive	012
Judge's Comments: Ceptated (cassurd.	
6. Monitor until emergency services arrive	0125
Judge's Comments: Pt (Gastertly monetard.  Until classification) - montard. 43	
Untel checker mont-on. 43	<u></u>
Page 6 Merits Subtotal	

7. Fill out casualty care report with the following information	
Date	@123
Time	0126
Team number (identity)	<b>Ô</b> 123
Location	Ø123
Patient's Name	0128
Vital Signs	0 1 2 <b>3</b>
Treatment	<i>(</i> 0)1 2 3
Injury Location on Body Outline	012
Judge's Comments:	
8. Rough Handling Deductions	Minus 1 2 3 4 5
Judge's Comments:	
Page 7 Meri	ts Subtotal
Page 7 Patient #1 Total Merits less Total Demerits To	otal Score
Judge's Signature:  ## Astering from disussin on score.  Previously worked with many.  Melnders	be cause teen
in conseid	



MASTER

95 Page 1

# INTERNATIONAL MINE RESCUE COMPETITION 2016

# FIRST AID COMPETITION

TEAM: #4 Sudbury BASIN COBRAS KGHM

<u>Casualty - #2</u> A male was working at height when the explosion occurred. The mine rescue team finds him suspended by his fall arrest system. He has abdominal injuries and is suffering from suspension trauma. He is conscious but confused. He says his legs hurt and he is dizzy. He is pale in color and perspiring heavily. The patient becomes non-verbal after he is lowered to safety and loses consciousness 3 minutes later. When the patient has been transported to the evacuation area he will suffer cardiac arrest. CPR with AED will be required.

Me	rits	Po	inte
TATE	1113	T O	111172

#### **SCENE SURVEY**

1. Assess Hazards
If the team picks up ladder and tools in work area they will have demonstrated assessing and correcting hazards

Judge's Comments: Left Jools + Jadder in place

6'loves were wo

#### 2. Use examination gloves

Examination gloves must be used before contact with patient occurs

0113

Gloves must be removed and disposed of properly

0 1 2 3

Judge's Comments:

Page 1 Merits Subtotal \_

28:34-LOCATE 27:14-Removed

#### 3. Rescue

5+

The team must have the patient on the ground within 2 minutes of the patient calling for help. The team will be able to stand on the drill to assist patient down. The patient will not speak as soon as he is on the ground.

Judge's Comments: Had patient on ground in less 9	HAD
2 minutes	
4. Identify Themselves as Emergency Responders	0123
The team members should identify themselves and ask the patient if he wants help.	
Judge's Comments: YEAM did A good job COMMUNICA	241 W6
1. Assess Breathing The LOC of Patient #2 changes 3 minutes after he is lowered to the ground. Patient's changes from non-responsive to unconscious To assess breathing teams must: Look for the rise and fall of the chest Feel for air movement Listen for air movement  Judge's Comments: TEAM WAS CFFICIENT with this	0 1 23 0 1 23 0 1 23

Page 2 Merits Subtotal \_\_\_\_\_\_\_

# **Assess Circulation** 1. The team must assess circulation 0 1 23 Pulse Skin Condition 0123 Skin Temperature TEAM did A good check offall Judge's Comments: Rapid Body Survey Teams must check; 1. The head and neck 0123 Judge's Comments: 2. The chest Judge's Comments: 3. The abdomen 0 1 2(3) Judge's Comments:

Page 3 Merits Subtotal 18

Judge's Comments: The buse was cheel	lo 2	<u>2</u> 3
5. The legs	012	_ 23
Judge's Comments:		
<u> </u>		
6. The shoulders and arms	0 1 2	23
Judge's Comments:		_
Secondary Assessment		
Head to Toe Assessment  The patient will be unconscious 3 minutes after he is lowered to the head to toe assessment to thoroughly assess the patient.	e ground. Teams must do a	
1. Assess the head	0 1 2	13
2. Examine the neck and collarbones	0 1 2	9
3. Assess the chest for an even rise and fall.	<b>()</b> 2	2 3
4. Examine the chest and back by touch	<b>Q</b> 1 2	2.3
5. Listen to the patients breathing and sounds the lungs are produci	ing <u>Q</u> 1 2	2 3
6. Examine the abdomen by touch	. 01 2	2 3
	Page 4 Merits Subtotal	

	Page 5
7. Examine the pelvic area by using pressure	01 2 3
8. Examine the upper, lower legs and feet by touch	① 2 <u>3</u>
9. Examine the upper, lower arms and hands by touch	<u> </u>
10. Reassess pulse	0 1 23
Judge's Comments:	
Treat for Shock	·
To treat for shock teams must;  1. Keep patient warm	0133
2. Keep patient at rest	0 1 2 3
Judge's Comments: Jean member stayed with potront	con
patrent was covered	
Treatment of Injuries	
1. Treatment for Suspension Trauma Teams must:	
Keep patient in sitting position on the ground ("W" position)	<b>2</b> 3
Loosen harness leg straps	0123
Judge's Comments: Never placed in "W" Position	<u> </u>

Page 5 Merits Subtotal 12

2. When the patient becomes unconscious teams must place patient in the supine posi knees flexed.	tion with  1 2 3
The linees being flored	et _
3. Monitor Patients Vital Signs Teams must monitor the patient's vital signs.	0123
Judge's Comments: checked vital signs copprofunctely	6 minutes
after patient became unconscious 32	+18
4. Monitor Patients Vital Signs Teams must monitor the patient's vital signs.	0123
Judge's Comments: checked the votal signs again	
82+18	
5. Monitor Patients Vital Signs Teams must monitor the patient's vital signs.	00
Judge's Comments: Almost 10 Minutes between ch	echo
6. Monitor Patients Vital Signs Teams must monitor the patient's vital signs at not more than 5 minutes intervals.  Judge's Comments:	€ No.
Page 6 Merits Subt	otal <u>6</u>

## Triage

1. Teams must transport patient #2 to the evacuation area first

_		Ī
.1	0+	

oudge	•	Comments.	- 1/	1	
		Comments.	7		C

# nt #2 to the evacuation area first 10+ 10+ 10+

## **Patient Care Report**

1. Teams to fill out casualty care report with the following information

Date	① 23
Time	@123
Team number (identity)	<b>Q</b> 1 2 3
Location	Q 23
Patient's Name	0 1 23
Vital Signs	0 1 23
Treatment	0 10
Injury Location on Body Outline	0 2
Indae's Comments:	

Judge's Comments:

Page 7 Merits Subtotal



9. Rough Handling Deductions  Judge's Comments:	Minus 1 2 3 4 5
Judge 5 Comments.	·
Page 8 Patient #2 Total Merits	Total Score 95
Judge's Signature: March Meright	

Page 1 Merits Subtotal \_\_\_\_

# INTERNATIONAL MINE RESCUE COMPETITION 2016

# **FIRST AID COMPETITION**

TEAM: KGHM COORA.	
Casualty - #2 A male was working at height when the explosion occurred. The mine reteam finds him suspended by his fall arrest system. He has abdominal injuries and is suffering from suspension trauma. He is conscious but confused. He says his legs hurt as is dizzy. He is pale in color and perspiring heavily. The patient becomes non-verbal after is lowered to safety and loses consciousness 3 minutes later. When the patient has been transported to the evacuation area he will suffer cardiac arrest. CPR with AED will be required.	and he er he
SCENE SURVEY Merits	Points
1. Assess Hazards If the team picks up ladder and tools in work area they will have demonstrated assessing an correcting hazards	)1 2 3 d
Judge's Comments:	
2. Use examination gloves	
Examination gloves must be used before contact with patient occurs	1 2
Gloves must be removed and disposed of properly	0123
Judge's Comments:	

# 3. Rescue

The team will be able to stand soon as he is on the ground.	nt on the ground with on the drill to assist	natient down	The natient wil	I not sneak as
Judge's Comments:	walk	2:32	silting or basket unporscio	flat.
	<	5:36	unconscio	الال
4. Identify Themselves as Er	nergency Responde	rs		0 1 23
The team members should ide	entify themselves and	ask the patie	nt if he wants he	elp.
Judge's Comments:				
1. Assess Breathing		<del></del>		
The LOC of Patient #2 chan		he is lowered	to the ground.	Patient's LOC
	e to unconscious	he is lowered	to the ground.	Patient's LOC
The LOC of Patient #2 chan changes from non-responsiv	e to unconscious nust:	he is lowered	to the ground.	Patient's LOC
The LOC of Patient #2 chan changes from non-responsiv To assess breathing teams m Look for the rise and fall of th Feel for air movement	e to unconscious nust:	he is lowered	to the ground.	Patient's LOC  0 1 2(3) 0 1 2(3)
The LOC of Patient #2 chan changes from non-responsive To assess breathing teams of Look for the rise and fall of the transmitted to the rise and fall of the transmitted transmitted to the rise and fall of the transmitted	e to unconscious nust:	he is lowered	to the ground.	0 1 <mark>2</mark> ③

Page 2 Merits Subtotal \_\_\_\_\_\_\_

Assess Circulation	
1. The team must assess circulation	
Pulse	0123
Skin Condition	0123
Skin Temperature	0 1 23 0 1 23
Judge's Comments:	
Rapid Body Survey	
Teams must check;	
1. The head and neck	0123
Judge's Comments:	
2. The chest	0 1 23
Judge's Comments:	
2 The shall were	0.160
3. The abdomen	0 1035
Judge's Comments:	

6. Examine the abdomen by touch

Page 4 Merits Subtotal \_

(0) 23

	Page 5
7. Examine the pelvic area by using pressure	<b>1</b> 2 3
8. Examine the upper, lower legs and feet by touch	<b>1</b> 2 3
9. Examine the upper, lower arms and hands by touch	<b>1</b> 2 3
10. Reassess pulse	<b>3</b> 1 23
Judge's Comments:	
Treat for Shock	
To treat for shock teams must;  1. Keep patient warm	0 1 23
2. Keep patient at rest	0 1 2 <b>③</b> 0 1 2 <b>③</b>
Judge's Comments:	
· · · · · · · · · · · · · · · · · · ·	
Treatment of Injuries	
1. Treatment for Suspension Trauma Teams must:	
Keep patient in sitting position on the ground ("W" position)	<b>Q123</b>
Loosen harness leg straps	0 1 2(3)
Judge's Comments:	
	10

2. When the patient becomes unconscious teams must place patient in the supine position knees flexed.	on with 01 2 3
Judge's Comments:	
back beard (baslest Plat-	
3. Monitor Patients Vital Signs ZO!20 Teams must monitor the patient's vital signs.	0123
Judge's Comments:	
Constantly verbal & partient	
4. Monitor Patients Vital Signs Teams must monitor the patient's vital signs.	0 1 23
Judge's Comments: 13:50 Checked Pulse	
Said still breathing	
5. Monitor Patients Vital Signs Teams must monitor the patient's vital signs.	0123
Judge's Comments: Said be check to captain	
6. Monitor Patients Vital Signs Teams must monitor the patient's vital signs at not more than 5 minutes intervals.	+5
Judge's Comments:	
Captain Way My Albane "Save" said Page 6 Merits Subton White Save as doubling the Subton Subton Save as doubling the Subton Subt	al
and they make in	

# Triage

1. Teams must transport patient #2 to the evacuation area first

	-
100	
10+	
	_

# Judge's Comments:

## **Patient Care Report**

1. Teams to fill out casualty care report with the following information

Date	<b>(5)</b> 1 2 3
Time	0023
Team number (identity)	<b>1</b> 2 3
Location	@1 2 3
Patient's Name	0 1 23
Vital Signs	0 1 23
Treatment	0 123
Injury Location on Body Outline	0 123*
Judge's Comments:	

Page 7 Merits Subtotal

9. Kough Handing Deductions	Minus 1 2 3 4 :
Judge's Comments: Possith endag men	
Page 8 Patient #2 Total Merits less Total Dem	erits F Total Score
Judge's Signature:	

# INTERNATIONAL MINE RESCUE COMPETITION 2016

# **FIRST AID COMPETITION**

1. Assess Hazards If the team picks up ladder and tools in work area they will have demonstrated assessing and correcting hazards  Judge's Comments:  2. Use examination gloves  Examination gloves must be used before contact with patient occurs  0 1 2 3	TEAM: Kottm Cobras.
SCENE SURVEY  1. Assess Hazards If the team picks up ladder and tools in work area they will have demonstrated assessing and correcting hazards  Judge's Comments:  2. Use examination gloves  Examination gloves must be used before contact with patient occurs  0 1 2 3	team finds him suspended by his fall arrest system. He has abdominal injuries and is suffering from suspension trauma. He is conscious but confused. He says his legs hurt and he is dizzy. He is pale in color and perspiring heavily. The patient becomes non-verbal after he is lowered to safety and loses consciousness 3 minutes later. When the patient has been transported to the evacuation area he will suffer cardiac arrest. CPR with AED will be
If the team picks up ladder and tools in work area they will have demonstrated assessing and correcting hazards  Judge's Comments:  2. Use examination gloves  Examination gloves must be used before contact with patient occurs  0 1 2 3  Gloves must be removed and disposed of properly  0 1 2 3	Merits Points SCENE SURVEY
2. Use examination gloves  Examination gloves must be used before contact with patient occurs  0 1 2 3  Gloves must be removed and disposed of properly  0 1 2 3	1. <u>Assess Hazards</u> If the team picks up ladder and tools in work area they will have demonstrated assessing and correcting hazards
Examination gloves must be used before contact with patient occurs  0 1 2 3  Gloves must be removed and disposed of properly  0 1 2 3	Judge's Comments:
Examination gloves must be used before contact with patient occurs  0 1 2 3  Gloves must be removed and disposed of properly  0 1 2 3	
Gloves must be removed and disposed of properly  0 1 2 3	2. Use examination gloves
	Examination gloves must be used before contact with patient occurs 0 1 2 3
Judge's Comments:	Gloves must be removed and disposed of properly  0 1 2 3
	Judge's Comments:

Page 1 Merits Subtotal \_\_\_\_\_

Page	2
1	_

#### 3. Rescue

The team must have the patient on the ground within 2 minutes of the patient calling for help. The team will be able to stand on the drill to assist patient down. The patient will not speak as soon as he is on the ground.

Judge's Comments:	
4. Identify Themselves as Emergency Responders	0 1 <b>2</b> G
The team members should identify themselves and ask the patient if he wants help.	
Judge's Comments:	
1. Assess Breathing The LOC of Patient #2 changes 3 minutes after he is lowered to the ground. Patient manages from non-responsive to unconscious	ent's LOC
To assess breathing teams must:  Look for the rise and fall of the chest	0126
Feel for air movement	0 1 2/3
Listen for air movement	0 1 23
Judge's Comments:	
Dana 2 Marian College	4-1
Page 2 Merits Subto	tal

	Page 3
Assess Circulation	
1. The team must assess circulation	
Pulse	0 1 23
Skin Condition	0 1 2(3) 0 1 2(3)
Skin Temperature	0 1 2(3)
Judge's Comments:	
Rapid Body Survey	
Teams must check;	
1. The head and neck	0 1 23
Judge's Comments:	
2. The chest	0123
Judge's Comments:	
3. The abdomen	0 1/2/3
Judge's Comments:	

	Page 4
4. The pelvis and buttocks	0 1 2/3
Judge's Comments:	0125
5. The legs	0128
Judge's Comments:	
6. The shoulders and arms	012(3)
Judge's Comments:	
Secondary Assessment	
Head to Toe Assessment	
The patient will be unconscious 3 minutes after he is lowered to the ground. The head to toe assessment to thoroughly assess the patient.	Ceams must do a
1. Assess the head	0 1 23
2. Examine the neck and collarbones	0 1 23
3. Assess the chest for an even rise and fall.	<u>@</u> 1 2 3
4. Examine the chest and back by touch	<b>1</b> 2 3
5. Listen to the patients breathing and sounds the lungs are producing	01 2 3
6. Examine the abdomen by touch	<b>1</b> 2 3
Page 4 Mer	rits Subtotal

	Page 5
7. Examine the pelvic area by using pressure	<u>(a)</u> 1 2 3
8. Examine the upper, lower legs and feet by touch	<b>1</b> 2 3
9. Examine the upper, lower arms and hands by touch	<b>1</b> 2 3
10. Reassess pulse	0 1 2 (3)
Judge's Comments:	
Treat for Shock	
To treat for shock teams must; 1. Keep patient warm	0 1 23
2. Keep patient at rest	0 1 2(3)
Judge's Comments:	
Treatment of Injuries	
1. Treatment for Suspension Trauma Teams must:	
Keep patient in sitting position on the ground ("W" position)	①1 2 3
Loosen harness leg straps	0 1 23
Judge's Comments:	
	Page 5 Merits Subtotal

2. When the patient becomes unconscious teams must place patient in the supine positiknees flexed.	ion with
Judge's Comments:	
3. Monitor Patients Vital Signs	0 1 23
Teams must monitor the patient's vital signs.  Judge's Comments:	
4. Monitor Patients Vital Signs Teams must monitor the patient's vital signs.	0 1 2(3)
Judge's Comments:	
5. Monitor Patients Vital Signs Teams must monitor the patient's vital signs.	0123
Judge's Comments:	
6. Monitor Patients Vital Signs Teams must monitor the patient's vital signs at not more than 5 minutes intervals.	Þ
Judge's Comments:	
Page 6 Merits Subto	otal

## Triage

1. Teams must transport patient #2 to the evacuation area first

10+	

#### Judge's Comments:

# **Patient Care Report**

1. Teams to fill out casualty care report with the following information

• •	
Date	0 23
Time	0(1)2 3
Team number (identity)	Ø123
Location	<b>(</b> ) 23
Patient's Name	0 1 2 3
Vital Signs	0 1 23
Treatment	0 123
Injury Location on Body Outline	0 123
Judge's Comments:	

Page 7 Merits Subtotal \_\_\_\_\_

9. Rough Handling Deductions		Minus 1 2 3 4 5
Judge's Comments:	Ole of Pallin	
•		
Page 8 Patient #2 Total Merits	less Total Demerits	Total Score
Judge's Signature:	126-	

# INTERNATIONAL MINE RESCUE COMPETITION 2016

# **FIRST AID COMPETITION**

TEAM: KGHM COBRAS
<u>Casualty - #2</u> A male was working at height when the explosion occurred. The mine rescue team finds him suspended by his fall arrest system. He has abdominal injuries and is suffering from suspension trauma. He is conscious but confused. He says his legs hurt and he is dizzy. He is pale in color and perspiring heavily. The patient becomes non-verbal after he is lowered to safety and loses consciousness 3 minutes later. When the patient has been transported to the evacuation area he will suffer cardiac arrest. CPR with AED will be required.
SCENE SURVEY  Merits Points
1. Assess Hazards If the team picks up ladder and tools in work area they will have demonstrated assessing and correcting hazards
Judge's Comments:
2. Use examination gloves
Examination gloves must be used before contact with patient occurs 0 1 2 5
Gloves must be removed and disposed of properly  0 1 2 3
Judge's Comments:
Page 1 Merits Subtotal

3.1	Resci	ue
-----	-------	----



The team must have the patient on the ground within 2 minutes of the patient calling for help. The team will be able to stand on the drill to assist patient down. The patient will not speak as soon as he is on the ground.

Judge's Comments:	
4. Identify Themselves as Emergency Responders	0123
The team members should identify themselves and ask the patient if he wants help.	
Judge's Comments:	
· · · · · · · · · · · · · · · · · · ·	
1. Assess Breathing The LOC of Patient #2 changes 3 minutes after he is lowered to the ground. Patie changes from non-responsive to unconscious To assess breathing teams must:	ent's LOC
Look for the rise and fall of the chest	0123
Feel for air movement Listen for air movement	0 1 2 <b>ර</b> 0 1 2 <b>ර</b>
Judge's Comments:	

3

4. The pelvis and buttocks	
Judge's Comments:	<b>Ø</b> 1 2 <b>3</b>
5. The legs	0128
Judge's Comments:	
6. The shoulders and arms	
Judge's Comments:	0 1 2(5)
Secondary Assessment	
Head to Toe Assessment  The patient will be unconscious 3 minutes after he is lowered to the ground. Tea head to toe assessment to thoroughly assess the patient.	ms must do a
1. Assess the head	0123
2. Examine the neck and collarbones	0123
3. Assess the chest for an even rise and fall.	<b>6</b> 123
4. Examine the chest and back by touch	<u></u> 1 2 3
5. Listen to the patients breathing and sounds the lungs are producing	<u></u>
5. Examine the abdomen by touch	<b>1</b> 2 <b>5</b>
Page 4 Merits	Subtotal

		Page 5
7. Examine the pelvic area by using pressure		<u></u>
8. Examine the upper, lower legs and feet by touch		<b>@</b> 1 2 <b>)&amp;</b>
9. Examine the upper, lower arms and hands by touch		<b> 1</b> 2 <b>0 3</b>
10. Reassess pulse		0 1 23
Judge's Comments:		
Treat for Shock		
To treat for shock teams must; 1. Keep patient warm		0 1 23
2. Keep patient at rest		0 1 23
Judge's Comments:		
Treatment of Injuries		
1. Treatment for Suspension Trauma Teams must:		
Keep patient in sitting position on the ground ("W" position)		<b>1</b> 2 3
Loosen harness leg straps		0 1 23
Judge's Comments:		
	Page 5 Merits Subtotal	

knees flexed.	1001 2 3
Judge's Comments:	
3. Monitor Patients Vital Signs Teams must monitor the patient's vital signs.	0123
Judge's Comments: 82 + 18	
4. Monitor Patients Vital Signs Teams must monitor the patient's vital signs.	0 1 23
Judge's Comments:  82 + \8	<del></del>
5. Monitor Patients Vital Signs Teams must monitor the patient's vital signs.	—— 足黑。
Judge's Comments:	
ALMART 10 MIN	
6. Monitor Patients Vital Signs Teams must monitor the patient's vital signs at not more than 5 minutes intervals.	Ø
Judge's Comments:	RVAL
Page 6 Merits Subtotal	

Page 7 Merits Subtotal	
------------------------	--

Judge's Comments:	Minus 1 2 3 4 3
Page 8 Patient #2 Total Merits less Total	Demerits Total Score
Judge's Signature:	

MASTER

### INTERNATIONAL MINE RESCUE COMPETITION 2016

	TO COM	<b>PETITION</b>	
TEAM: KGHM SU	DBURY	COBLAS	
Casualty - #3 A male patient was re The mine rescue team finds him entar He has multiple blunt force injuries in left lower leg, and lacerated left knee.  SCENE SURVEY	epairing the d ngled in the di ncluding an o	rill when the fire a rill rods. He is conso pen fracture of left e	nd explosion occurred. cious but is non-verbal. elbow, open fracture of
-/ 10/17/(2)/2	will have de fore they try	of t	g and correcting ont.
2. Use examination gloves	C 110000	LASTE	
Examination gloves must be used before confidence of Gloves must be removed and disposed property.	ntact with pat	ient occurs	0126
Judge's Comments:	erly		0126
	II.		5
		Page 1 Merit	s Subtotal

0123

The team members should identify the	hemselves and ask the patient if he wants	help.
Judge's Comments:	Renover	
Assess Breathing		
1. The team must assess the airway Patient #3 will not speak, to assess the	he airway the team must:	0 : 06
Look for the rise and fall of the chest Feel for air movement	t	0 1 2 <b>3</b> 0 1 2 <b>3</b>
Listen for air movement		0126
Judge's Comments:		
		115-2
2. Extrication	ant array the metionts shirt to free him fr	tom the drill rods
The team will need to use scissors to	cut away the patients shirt to free him fr	om me urm rous.
Judge's Comments:		
	Page 2 Me	rits Subtotal 14

3. Identify Themselves as Emergency Responders

### **Assess Circulation** 1. The team must assess circulation To assess circulation teams must check; 0123 Pulse **©**123 Skin Condition **1** 2 3 Skin Temperature Judge's Comments: **Rapid Body Survey** Teams must check; **(**1 2 3 1. The head and neck Judge's Comments: **(**0)1 2 3 2. The chest **Judge's Comments: (1)** 23 3. The abdomen **Judge's Comments:**

6. Examine the abdomen by touch

7. Examine the pelvic area by using pressure

0 1 2(3)

0 1 2(3)

	Page 5
8. Examine the upper, lower legs and feet by touch	0 1 23
9. Examine the upper, lower arms and hands by touch	0 1 2 <b>©</b>
10. Reassess pulse	0125
Judge's Comments:	
1. Treat for Shock To treat for shock teams must;	
Reassure patient	0123
Keep patient warm	0123
Keep patient at rest	0123
Judge's Comments:	
Treatment of Injuries  1. Treat Open Fracture to Left Elbow (Arm will not bend)  If teams bend arm to splint rough handling will apply  Fully expose injury	0 1 2 <b>(3</b> )
Maintain arm in position of comfort	<b>©</b> 123
Apply dressing	0126
Pad above and below wound	<b>0</b> 123
Apply a bandage USEO Novem GAUTE	012
Apply bandage to support the arm at the wrist Ann Sun	(0,123

		Page 6
Apply padding between injury and patients	side	<b>(</b> 1 2 3
Apply broad bandage above the fracture		<b>©</b> 123
Apply broad bandage below the fracture		<b>©</b> 123
Check circulation below the injury before s	splinting	<b>Ø</b> 123
Check circulation below the injury after spl	linting Squared Tuums	0 1 23
Compare circulation to uninjured arm		0 1 2 <b>8</b>
Judge's Comments:		
3. Treat Laceration to Left Knee		
		0 1 2 <b>③</b>
		0 1 2 <b>③</b> <b>①</b> 1 2 3
Fully expose injury Apply Dressing		_
Fully expose injury Apply Dressing	lying bandage	<b>©</b> 1 2 3
Fully expose injury Apply Dressing Apply Bandage		<b>©</b> 1 2 3 <b>©</b> 1 2 3
Fully expose injury  Apply Dressing  Apply Bandage  Check circulation below injury before appl		<b>©</b> 123 <b>©</b> 123
Fully expose injury  Apply Dressing  Apply Bandage  Check circulation below injury before apple  Check circulation below injury after applyi		<ul> <li>①123</li> <li>①123</li> <li>①123</li> <li>①123</li> <li>①123</li> </ul>

Page 6 Merits Subtotal

Page 7 Merits Subtotal 21

Patient Care Report	
1. Teams to fill out casualty care report with the following information	
Date	<b>6</b> 1 2 3
Time	6123
Team number (identity)	6123
Location	Ø 1 2 3
Patient's Name	0125
Vital Signs	0 1 2 <b>3</b>
Treatment	0126
Injury Location on Body Outline	0 1@3
Judge's Comments:  MISS KNEW LACELATION	,
6. Rough Handling Deductions  Judge's Comments:	Minus 1 2 3 4 5
Page 8 Me	erits Subtotal
Patient #3 Total Merits 112 less Total Demerits	Total Score 112
Judge's Signature:	<u></u>
NETU Sture. BEAST	) , قيما

#### INTERNATIONAL MINE RESCUE COMPETITION 2016

<b>TEAM:</b>	KGHM	SUDBLER	1	
The mine res He has multi	scue team finds hin		rods. He is consci	
SCENE SURVI	<u>EY</u>			
	s off power to the d	rill they will have dem ower before they try to		
Judge's Commo	ents:	Before	DRILL	WAS
off.	2)	Before	1 1 par 25	
2. Use examina				
Examination glo	oves must be used b	efore contact with pat	ient occurs	0 1 2 3
Gloves must be	removed and dispo	sed properly		0 1 23 0 1 23
Judge's Comme	ents:			
	7			
			Page 1 M	erits Subtotal

3. Identify Themselves as Emergency Responders	$(0^{1})$ 2 3
The team members should identify themselves and ask the patient if he wants hel	p.
Judge's Comments:	
Assess Breathing	
1. The team must assess the airway.	
Patient #3 will not speak, to assess the airway the team must:  Look for the rise and fall of the chest	0128
Feel for air movement	012③
Listen for air movement	0 1 2(3)
Judge's Comments:	
2. Extrication The team will need to use scissors to cut away the patients shirt to free him from	the drill rods.
Judge's Comments:  VERY  LATE	
Page 2 Merits	Subtotal

Page 3 Merits Subtotal

Assess Circulation					
1. The team must ass To assess circulation t					
Pulse					0 1 2 3
Skin Condition					<b>©</b> 1 2 3
Skin Temperature					6123
Judge's Comments:		NOVISABLE	516~	٥٢	
Rapid Body Survey	NOT	Conflores	WENT	to LEG	
Teams must check;					
1. The head and neck					① 23
Judge's Comments:					
2. The chest			10		<u>(i)</u> 2 3
Judge's Comments:					
3. The abdomen					<b>@</b> 123
Judge's Comments:					
-				<u> </u>	

4. The pelvis and buttocks	(A) a a
Judge's Comments:	<u>(0)</u> 1 2 3
5. The legs	<b>1</b> 2 3
Judge's Comments:	
6. The shoulders and arms	(D) 23
Judge's Comments:	
Head to Toe Assessment MENTISMS SECONDRY	_
The patient will not respond to verbal stimuli. Teams must do a head to toe assessment thoroughly assess the patient.	to
1. Assess the head	0 1 23
2. Examine the neck and collarbones	0 1 23
3. Assess the chest for an even rise and fall.	0 1 23
4. Examine the chest and back by touch	0123
5. Listen to the patients breathing and sounds the lungs are producing	012③
6. Examine the abdomen by touch Position (4 mor By Dane	0123
7. Examine the pelvic area by using pressure	0123
SHOULD MOVE PATIENT 10 GROWN  (2)  Page 4 Merits Subto	tal

	Page 5
8. Examine the upper, lower legs and feet by touch	0 1 23
9. Examine the upper, lower arms and hands by touch	0123
10. Reassess pulse	0 1 23
Judge's Comments: NO PLIMAM WAS DONE	
WENT STRAIGHT TO CEG	_
1. Treat for Shock To treat for shock teams must;	
Reassure patient	0 1 23>
Keep patient warm	0 1 2③
Keep patient at rest PATHENT LEFT AT DRILL	<b>0</b> 1 2 3
Judge's Comments:	
	1000
Treatment of Injuries  1. Treat Open Fracture to Left Elbow (Arm will not bend)  If teams bend arm to splint rough handling will apply  Fully expose injury	0123
Maintain arm in position of comfort	①123
Apply dressing	0 1 23
Pad above and below wound	①1 2 3
Apply a bandage	0 1 2(3)
Apply bandage to support the arm at the wrist DID AND SLIP	①1 2 3

Page 5 Merits Subtotal \_\_\_\_\_

	Page 6
Apply padding between injury and patients side	①1 2 3
Apply broad bandage above the fracture	(O) 23
Apply broad bandage below the fracture	① 23
Check circulation below the injury before splinting	0)23
Check circulation below the injury after splinting	0 1 23
Compare circulation to uninjured arm	0 1 2(3)
Judge's Comments:  CIRCULATION CHECKS DONE	
CIRCACA TION C 10000 COT C	<del> ,</del>
3. Treat Laceration to Left Knee	
Fully expose injury	0 1 23
Apply Dressing	012③
Apply Bandage	0 1 23
Check circulation below injury before applying bandage	<b>1</b> 2 3
Check circulation below injury after applying bandage	©123
Compare circulation to uninjured leg	<b>(</b> ) 1 2 3
Judge's Comments:	

Page 6 Merits Subtotal \_\_\_\_\_

Page 7 Merits Subt	otal
--------------------	------

## INTERNATIONAL MINE RESCUE COMPETITION 2016

TEAM:	KGHM	SUBBURY	COBRAS	_
Casualty The mine He has n	y - #3 A male e rescue team f nultiple blunt f	patient was repairi inds him entangled	ng the drill when the in the drill rods. He i	e fire and explosion occurred. s conscious but is non-verbal. of left elbow, open fracture of
	azards huts off power		ll have demonstrated at they try to extricate	0(1)2 3 assessing and correcting the patient.
Judge's Con	nments: tien f kefe hazards ination gloves	removed	was isotated too late oft	r patiet extracted
√Examination	gloves must b	e used before conta	ct with patient occurs	0123
√Gloves must	be removed as	nd disposed properl	у	0123
Judge's Cor	nments:			
	4 A X			
			<b>.</b>	
			Р	age 1 Merits Subtotal

3. Identity I nemselves as Emergency Responders	0123
The team members should identify themselves and ask the patient if he wants help.	
Judge's Comments:	
Assess Breathing	
1. The team must assess the airway.	
Patient #3 will not speak, to assess the airway the team must:	
Look for the rise and fall of the chest	0123
Feel for air movement Listen for air movement	0123 0123
Poster for all movement	0123
Judge's Comments:	
2. Extrication  The team will need to use spiceous to out away the nationts shirt to free him from the	5+
The team will need to use scissors to cut away the patients shirt to free him from the	driii rods.
Judge's Comments:	
Page 2 Merits Su	htatal
rage 2 ivients Su	

Assess Circulation	
1. The team must assess circulation To assess circulation teams must check;	
Pulse	0 1 2 3
Skin Condition	0123
Skin Temperature	0123
Judge's Comments:	
Rapid Body Survey	
Teams must check;	
7. The head and neck	0123
Judge's Comments:	
<u> </u>	
2. The chest	0123
Judge's Comments:	
3. The abdomen	<u></u>
Judge's Comments:	
	Page 2 Monito Subtatal
	Page 3 Merits Subtotal

4. The pelvis and buttocks	<b>0</b> 12
Judge's Comments:	
5. The legs	0,12
Judge's Comments:	
6. The shoulders and arms	0)1 2
Judge's Comments:	
Head to Toe Assessment  The patient will not respond to verbal stimuli. Teams must do a head to toe assessment	ent to
1. Assess the head back of hand whilst on drill	0 1 2
2. Examine the neck and collarbones.	0 1 2
3. Assess the chest for an even rise and fall. book to come tent	0 1 2
4. Examine the chest and back by touch	0 1 2
5. Listen to the patients breathing and sounds the lungs are producing breaths	012
6. Examine the abdomen by touch	0 1 2
7. Examine the pelvic area by using pressure	0 1 2
Secondary down on drill.  Alternative To complete thorough exampasserment Page 4 Merits Su	btotal
48 respirations	

	Page 5
8. Examine the upper, lower legs and feet by touch	0123
19. Examine the upper, lower arms and hands by touch	0123
√10. Reassess pulse	0123
Judge's Comments:	
1. Treat for Shock To treat for shock teams must;	
Reassure patient	0123
Keep patient warm	0 1 2(3)
Keep patient at rest	0123
Judge's Comments:	
Treatment of Injuries  1. Treat Open Fracture to Left Elbow (Arm will not bend)  If teams bend arm to splint rough handling will apply  Fully expose injury	0123
Maintain arm in position of comfort	(N 23
Apply dressing	0123
× Pad above and below wound	(0 \ 2 3
√Apply a bandage	0123
Apply bandage to support the arm at the wrist	0123

Page 5 Merits Subtotal \_\_\_\_\_

	Page 6
Apply padding between injury and patients side	<u> </u>
×Apply broad bandage above the fracture	0123
✓ Apply broad bandage below the fracture	<u>O</u> 1 2 3
Check circulation below the injury before splinting	0123
Check circulation below the injury after splinting squerye thumbs	0 1 23
Compare circulation to uninjured arm	0123
Judge's Comments:	
Rearred & removed sling to see if fougher.  3. Treat Laceration to Left Knee	
Fully expose injury	0 1 2(3)
Apply Dressing	<u>O</u> 1 2 3
× Apply Bandage	0123
	0123
Check circulation below injury after applying bandage	0\123
Compare circulation to uninjured leg	0.1 2 3
Judge's Comments:	
Did not identify injury treated with other 10	yory .

Page 6 Merits Subtotal \_\_\_\_\_

Page 7 Merits Subtotal \_\_\_\_\_

Patient Care Report	
1. Teams to fill out casualty care report with the following inform	nation
× Date	<u> </u>
>Time	<u> </u>
< Team number (identity)	<u> </u>
×Location	@123
Patient's Name	0123
Vital Signs	0123
Treatment	0 1 2 3
Anjury Location on Body Outline	0 1(2)3
Judge's Comments: Duly 2/3 injured	
6. Rough Handling Deductions	Minus 1 2 3 4 5
Judge's Comments: Rolled cuto recovery after stropping injuries	, , ,
Good patient care.	
	Page 8 Merits Subtotal
Patient #3 Total Merits less Total Demeri	ts Total Score

Judge's Signature:

### INTERNATIONAL MINE RESCUE COMPETITION 2016

3. Identify Themsel	ves as Emergency Responders	0123
The team members s	should identify themselves and ask the patient if h	e wants help.
Judge's Comments	<b>:</b>	
Assess Breathing		
1. The team must a	ssess the airway.	
Patient #3 will not s	peak, to assess the airway the team must:	4-
Look for the rise and		0123
Feel for air moveme		0123
Listen for air moven	nent	0 1 2 3
Judge's Comments	<b>:</b>	
2. Extrication		(5+)
The team will need	to use scissors to cut away the patients shirt to free	e him from the drill rods.
Judge's Comments	<b>:</b>	
	······································	
	Pag	ge 2 Merits Subtotal

Assess Circulation	
1. The team must assess circulation To assess circulation teams must check;	
Pulse	0 1 23
> Skin Condition	<b>0</b> 123
Skin Temperature	0/1 2 3
Judge's Comments:	
Rapid Body Survey	
Teams must check;	
1. The head and neck	0123
Judge's Comments:	
2. The chest	0123
Judge's Comments:	
3. The abdomen	0123
Judge's Comments:	
	Page 3 Merits Subtotal

	Page 5
8. Examine the upper, lower legs and feet by touch	0123
9. Examine the upper, lower arms and hands by touch	0 1 2 3
10. Reassess pulse	0123
Judge's Comments:	
1. Treat for Shock To treat for shock teams must;	
Reassure patient	0123
Keep patient warm	0123
Keep patient at rest	0 1 23
Judge's Comments:	
Treatment of Injuries  1. Treat Open Fracture to Left Elbow (Arm will not bend)  If teams bend arm to splint rough handling will apply  Fully expose injury	0 1 23
∨ Maintain arm in position of comfort	<b>1 2 3</b>
Apply dressing	0 1 2 3
Read above and below wound 5 PLINTED	①1 2 3
Apply a bandage USUD ROLLUZ GHUZÚ	0123
Apply bandage to support the arm at the wrist USED Aum	0123
FOOK SLING OFF CITM	
CUT OUT OF RODE 16m 303	Page 5 Merits Subtotal

	Page 6
Apply padding between injury and patients side	0 23
X Apply broad bandage above the fracture	<b>1</b> 2 3
× Apply broad bandage below the fracture	<b>1</b> 2 3
Check circulation below the injury before splinting	<b>①</b> 1 2 3
Check circulation below the injury after splinting	012③
Compare circulation to uninjured arm	0 1 23
Judge's Comments:	
3. Treat Laceration to Left Knee	
Fully expose injury	0123
Apply Dressing	0123
XApply Bandage	0123
X Check circulation below injury before applying bandage	0123
× Check circulation below injury after applying bandage	0123
∨Compare circulation to uninjured leg	0123
Judge's Comments:  DIO NOT FIND INSUAY	

Page 6 Merits Subtotal \_\_\_\_\_

	Page 7
4. Open Fracture Lower Left Leg	
Fully expose injury	0123
Apply Dressing	0123
√ Apply Padding	0123
Apply Broad Bandage to secure Padding	0123
<b>XPad splint</b>	0123
Apply splint	012(3)
Bandages	
Thigh	0123
×Knee	0123
Above Fracture	0123
Below Fracture	0123
Figure of Eight	0123
× Check circulation below injury before splinting	0123
∨ Check circulation below injury after splinting	0123
¿ Compare circulation to uninjured leg	0123
Judge's Comments:	
	_
2 24 2-47	

Page 7 Merits Subtotal

Patient Care Report	
1. Teams to fill out casualty care report with the following information	
Date	<u> </u>
Time	<u>0</u> 1 2 3
Team number (identity)	0123
>> Location	0123
Patient's Name	0 1 2 3
Vital Signs	0123
Treatment	0123
Injury Location on Body Outline 2/3	0 1 2 3
Judge's Comments:	
6. Rough Handling Deductions	Minus 1 2 3 4 5
Judge's Comments:	
Page	e 8 Merits Subtotal
Patient #3 Total Merits less Total Demerits	Total Score
Judge's Signature:	

# INTERNATIONAL MINE RESCUE COMPETITION 2016 FIRST AID COMPETITION CPR AED

MA STER PCORBL Shoot KGHM ( JUDBURY Team Approach 1. Captain calls in and provides an update Team must update control centre Judge's Comments: Used phase - late but done 2. Initial Response A team member Did not assess - just jumped into CPE Assesses patient — Prepares to start CPR A team member Sets up personal pocket mask 0123 A team member Gets the AED Sets up the AED

Page 1 Merits Subtotal \_\_\_\_\_\_\_\_\_

Page 2 Merits Subtotal 29

	Page 3
When giving rescue breaths, maintain a good seal by using both hands to hold the mask in place.	012(3)
Maintain an open airway using head tilt chin lift 500d Lead hilf	0123
Give two breaths	0 1 2③
Watch to see if chest is rising and falling.	0128
Repeat 2 breaths every thirty compressions	0123
Judge's Comments:	
6. AED arrives Must be started immediately (without delay)	0 1 2(3)
Open and turn on the AED	0 1 2(3)
Remove any clothing or objects (including Jewelry) from the person that may come in contact with the pads.	0 1 2(3)
Remove any medical patches, including nitroglycerin, nicotine, or hormone.	0 1 23
Ensure that the chest is dry and free of hair so the pads can stick.	0128
Properly place the AED Pads (follow the diagrams on the pads)	013
Pads must be at least 2.5cm (1") between pads when placed on the chest.	013
Follow the AED's automated prompts  did not listen to AED  continued CPR despto  AED shelicating to not foul pt	0123

Page 3 Merits Subtotal 34

Stand clear	No Shock	@123
Say "I'm clear, you're clear, everybody's clear."	advised	0123
Make sure that no one is touching the person in cardiac arrest during analyze and shock modes.		<u>0</u> 1 2 3
Judges' Comments:		<i>s</i>
CPR Rescuer #2	Showk top le	2.) 0- chau
	of the person's chest.	on chas
Proper hand placement, place the heel of one hand on the idle		0123
Proper hand placement, place the heel of one hand on the idle		(1)23
CPR Rescuer #2  Proper hand placement, place the heel of one hand on the idle  Place the other hand on top.  Do 30 compressions  Allow the chest to recoil after each compression.		0123

Page 4 Merits Subtotal 10

Place the mask so that it covers the person's mouth and nose.  Position the lower rim of the mask between the person's lower lip and chin.  The opposite end of the mask should cover the nose  O 1 2 3  When giving rescue breaths, maintain a good seal by using both hands to hold the mask in place.  Maintain an open airway using head tilt chin lift.  O 1 2 3  Give two breaths  O 1 2 3  O 1 2 3	Rescue Breather #2:	Page 5
Position the lower rim of the mask between the person's lower lip and chin.  The opposite end of the mask should cover the nose  0 1 2 3  When giving rescue breaths, maintain a good seal by using both hands to hold the mask in place.  0 1 2 3  Maintain an open airway using head tilt chin lift. — 500 d head hilt chin lift.  Give two breaths  0 1 2 3  Watch to see if chest is rising and falling.  0 1 2 3  Watch to see if chest is rising and falling.  0 1 2 3  Judge's Comments:  Follow the AED's automated prompts  0 1 3  When the AED prompts you to give a shock the team should:  Stand clear  Say "I'm clear, you're clear, everybody's clear."  0 1 2 3  Make sure that no one is touching the person in cardiac arrest	Set up personal pocket mask	0123
The opposite end of the mask should cover the nose  O 1 2 ③  When giving rescue breaths, maintain a good seal by using both hands to hold the mask in place.  O 1 2 ③  Maintain an open airway using head tilt chin lift. — 500 d hand hit lift.  Give two breaths  O 1 2 ③  Watch to see if chest is rising and falling.  Repeat 2 breaths every thirty compressions  O 1 2 ③  Judge's Comments:  Follow the AED's automated prompts  O 1 ②  When the AED prompts you to give a shock the team should:  Stand clear  Say "I'm clear, you're clear, everybody's clear."  O 1 2 ③  Make sure that no one is touching the person in cardiac arrest	Place the mask so that it covers the person's mouth and nose.	0123
Maintain an open airway using head tilt chin lift. — 500 d head tilt  On 123  Give two breaths  On 123  Watch to see if chest is rising and falling.  Repeat 2 breaths every thirty compressions  On 123  Judge's Comments:  Follow the AED's automated prompts  On 123  When the AED prompts you to give a shock the team should:  Stand clear  Say "I'm clear, you're clear, everybody's clear."  On 23  Make sure that no one is touching the person in cardiac arrest	·	
Give two breaths  O 1 2(3)  Watch to see if chest is rising and falling.  Repeat 2 breaths every thirty compressions  O 1 2(3)  Judge's Comments:  Follow the AED's automated prompts  O 1 (3)  When the AED prompts you to give a shock the team should:  Stand clear  Say "I'm clear, you're clear, everybody's clear."  Ol 2 3  Make sure that no one is touching the person in cardiac arrest	· · · · · · · · · · · · · · · · · · ·	0129
Watch to see if chest is rising and falling.  Repeat 2 breaths every thirty compressions  Judge's Comments:  Follow the AED's automated prompts  When the AED prompts you to give a shock the team should:  Stand clear  Say "I'm clear, you're clear, everybody's clear."  Make sure that no one is touching the person in cardiac arrest	Maintain an open airway using head tilt chin lift 500 d head tilt	0123
Repeat 2 breaths every thirty compressions  Judge's Comments:  Follow the AED's automated prompts  O 1 23  When the AED prompts you to give a shock the team should:  Stand clear  Say "I'm clear, you're clear, everybody's clear."  Ol 2 3  Make sure that no one is touching the person in cardiac arrest		0 1 2(3)
Judge's Comments:  Follow the AED's automated prompts  0 1 3  When the AED prompts you to give a shock the team should:  Stand clear  Say "I'm clear, you're clear, everybody's clear."  Ol 2 3  Make sure that no one is touching the person in cardiac arrest	Watch to see if chest is rising and falling.	012
Follow the AED's automated prompts  O 1 23  When the AED prompts you to give a shock the team should:  Stand clear  Say "I'm clear, you're clear, everybody's clear."  O1 2 3  Make sure that no one is touching the person in cardiac arrest	Repeat 2 breaths every thirty compressions	0123
When the AED prompts you to give a shock the team should:  Stand clear  Say "I'm clear, you're clear, everybody's clear."  Make sure that no one is touching the person in cardiac arrest	Judge's Comments:	
Stand clear  Say "I'm clear, you're clear, everybody's clear."  Make sure that no one is touching the person in cardiac arrest	Follow the AED's automated prompts	01(3)
Say "I'm clear, you're clear, everybody's clear."  O1 2 3  Make sure that no one is touching the person in cardiac arrest	When the AED prompts you to give a shock the team should:	
Say "I'm clear, you're clear, everybody's clear."  O1 2 3  Make sure that no one is touching the person in cardiac arrest	Stand clear No. Shock	<u>0</u> 1 2 3
Make sure that no one is touching the person in cardiac arrest	· ·	0123
	Make sure that no one is touching the person in cardiac arrest	0123
Judge's Comments:	Judge's Comments:	

CPR Rescuer #3	Page 6
Proper hand placement, place the heel of one hand on the idle of the person's chest.	012(3)
Place the other hand on top.	0123)
Do 30 compressions. (Compression depth 5cm (2 inches)	0(1)23
Allow the chest to recoil after each compression.	012(3)
Judge's Comments:  Did not push hard anough a CPR	
Rescue Breather #3	
Set up personal pocket mask	0 1 2(3)
Place the mask so that it covers the person's mouth and nose.	0123
Position the lower rim of the mask between the person's lower lip and chin.  The opposite end of the mask should cover the nose	0 1 2 <u>3</u> 0 1 2 <u>3</u>
When giving rescue breaths, maintain a good seal by using both hands to hold the mask in place.	012③
Maintain an open airway using head tilt chin lift 500d	0 1 23
Give two breaths	0128
Watch to see if chest is rising and falling.	012 <u>3</u> )
Repeat 2 breaths every thirty compressions	0 1 2(3)
Judge's Comments:	

	Page 7
Follow the AED's automated prompts	0 1 2(3)
When the AED prompts you to give a shock the team should:	
Stand clear	0123
Stand clear  Say "I'm clear, you're clear, everybody's clear."	0123
Make sure that no one is touching the person in cardiac arrest during analyze and shock modes.	0123
Judge's Comments:	
CPR Rescuer #4	
Proper hand placement, place the heel of one hand on the idle of the person's chest.	0 1 23
Place the other hand on top.	0123
Do 30 compressions	0 1 2(3)
Allow the chest to recoil after each compression.	0 1 2 3
Judge's Comments:	
	a
Rescue Breather #4	
Set up personal pocket mask	0123
Place the mask so that it covers the person's mouth and nose.	0123

	Page 8
Position the lower rim of the mask between the person's lower lip and chin.  The opposite end of the mask should cover the nose	1 2 <u>3</u> 1 2 <u>3</u>
When giving rescue breaths, maintain a good seal by using both hands to hold the mask in place.	L 2(3)
Maintain an open airway using head tilt chin lift. — Good 100	L 2(3)-
	L 2 <u>③</u>
Watch to see if chest is rising and falling.	L 2 <u>(3</u> )
Repeat 2 breaths every thirty compressions 0 1	l 2(3)
Judge's Comments:	
Follow the AED's automated prompts 0 1	1 2(3)
When the AED prompts you to give a shock the team should:	
Stand clear Shock 01	2(3)
Say "I'm clear, you're clear, everybody's clear."	2(3)
Make sure that no one is touching the person in cardiac arrest during analyze and shock modes.  0 1	23
Judge's Comments:	
CPR Rescuer #5	
Proper hand placement, place the heel of one hand on the idle of the person's chest. 0 1	23
Place the other hand on top. 0 1	. 2(3)
Do 30 compressions.	23

Allow the chest to recoil after each compression.	0173
Judge's Comments:	
Rescue Breather #5	
Set up personal pocket mask	0123
Place the mask so that it covers the person's mouth and nose.	0 1 23
Position the lower rim of the mask between the person's lower lip and chin. The opposite end of the mask should cover the nose	012 <u>3</u> 012 <u>3</u>
When giving rescue breaths, maintain a good seal by using both hands to hold the mask in place.	0123
Maintain an open airway using head tilt chin lift. No head filt chin lift.  Neck Rezer	<b>O</b> 1 2 3
Give two breaths  Neck Wexer	0123
Watch to see if chest is rising and falling.	0128
Repeat 2 breaths every thirty compressions	0123
Judge's Comments:	
No head tilt club life	

### KGHM Sudbury Cobres

### CPR SCORE SHEET CPR Quality

Average Chest Com	pressions Rate for team			
0 (<80 or >140)	1 (80-90 or 130-140)	2 (90-100 or :	120-130)	3 (100-120)
				110
Number of individua	al cycles of 100-120 compre	essions per minute (5 pa	articipants with	n 5 cycles each)
0 (0)	(1 (1-14))	2 (15-24)		3 (25)
	1/2 Cotten	2 (15-24) mi foo foot ( fo:	spw)	
Average Depth of co	ompressions (compressions			
	1 (4-4.5cm or 6.5-7cm)			3 (5-6 cm)
0.5 cm	•			
•	ressions where full recoil o	f the chest was allowed	l	
0 (0% - 50%)				ľ
0.5	70%	•		
Total amount of inte	•			
	1 (1.5 – 2 minutes)	2 (1 – 1.5 minutes)	3 (<1 minute	9)
0458	,	,		•
Effective Compression	ons			
0 (0% - 50%)		2 (75%-90%)	3 (90-100%)	
- (	(1 (30%-75%)	_ (, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5,	5 (50 20070)	
Effective Ventilation	•			
0 (0% - 50%)	1 (50%-75%)	2 (75%-90%)	3 (90-100%)	
23%	1 (35/3 / 3/4)	2 (73/8 30/8)	3 (30-100/0)	
Judge's Comments:				
Judge 3 comments.				
Deductions Minus			0	1 2 3 4 5
Judge's Comments:				1 2 3 4 3
Judge's Comments.				
	11		-	
$\wedge$	fatración	<i>—</i>	/	( la ots)
		A21	<b>,</b>	
///00	( andso			
/		#7 \ ( \nabla	PHA	

#### August 22, 2016

## INTERNATIONAL MINE RESCUE COMPETITION 2016 FIRST AID COMPETITION CPR AED

# Hora Kottm

#### **Judges Instructions**

Scoring:

0 = not done

1 = poor attempt

2 = needs improvement

3 = excellent meets all requirements

- 1. Every line must be scored.
- 2. A score of 0, 1 or 2 must be explained by the judges or the Chief Judge will remove the demerit.
- 3. When a score of 3 is applied, comments are encouraged
- 4. If a team runs out of time a score of 0 will apply to remaining actions

#### **Rough Handling**

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#### Scenario

The team will transport the patient with the highest priority from the accident scene to the receiving area (sea containers). Upon arrival at the receiving area the patient will be told the patient is vital signs absent.

The team will be required to begin CPR, provide ventilations with a pocket mask and use an AED. A CPR mannequin in a stretcher will be located in the receiving area. When five team members have completed CPR and ventilations the competition will be completed.

## INTERNATIONAL MINE RESCUE COMPETITION 2016 FIRST AID COMPETITION CPR AED

TEAM: KGHM - Some	udbury Cobras	
Captain calls in and provides an update.	te Par	
Team must update control centre  Judge's Comments:	Late	012(3)
2. Initial Response		
A team member Assesses patient Prepares to start CPR		@1 2 3 0 1 23)
A team member Sets up personal pocket mask A team member	Not familia.	0123
Gets the AED Sets up the AED		012 <b>3</b> ) 012 <b>3</b> )
Slow to	recognice	

Page 1 Merits Subtotal \_ / S

Examination gloves must be used before contact with patient occurs	
·	0123
Airway check	0 1 2 3
Breathing check Circulation check	0123
Judge's Comments:	
Rescuer #1 to start CPR Immediately (without delay)	5+
Proper hand placement, place the heel of one hand on the idle of the person's chest.	0 1 2(3)
Place the other hand on top.	0123
Do 30 compressions	0123
Allow the chest to recoil after each compression.	0123
Judge's Comments:	
5. Rescue breather #1 with a Resuscitation Mask (pocket mask)	
5. Rescue breather #1 with a Resuscitation Mask (pocket mask) Place the mask so that it covers the person's mouth and nose.	0 1 2/3\
• • •	012/3
Place the mask so that it covers the person's mouth and nose.	

	Page 3
When giving rescue breaths, maintain a good seal by using both hands to hold the mask in place.	0 1 23
Maintain an open airway using head tilt chin lift.	0 1 2/3
Give two breaths	0 1 2(3)
Watch to see if chest is rising and falling.	0128
Repeat 2 breaths every thirty compressions	0 1 2(3)
Judge's Comments:	
6. AED arrives Must be started immediately (without delay)	0 1 2(3)
Open and turn on the AED	012/3
Remove any clothing or objects (including Jewelry) from the person that may come in contact with the pads.	012/3
Remove any medical patches, including nitroglycerin, nicotine, or hormone.	012(3)
Ensure that the chest is dry and free of hair so the pads can stick.	0 1 2(3)
Properly place the AED Pads (follow the diagrams on the pads)	0123
Pads must be at least 2.5cm (1") between pads when placed on the chest.	0123
Follow the AED's automated prompts  At not Ly Lo to  AED	<u>(</u> )1 2 <del>3</del>
I	

Page 3 Merits Subtotal

Page 4 Merits Subtotal

Place the mask so that it covers the person's mouth and nose.  Position the lower rim of the mask between the person's lower lip and chin. The opposite end of the mask should cover the nose  When giving rescue breaths, maintain a good seal by using both hands to hold the mask in place.  Maintain an open airway using head tilt chin lift.  Give two breaths  Watch to see if chest is rising and falling.	28 28 20 20 20 20 20 20 20 20 20 20 20 20 20
Position the lower rim of the mask between the person's lower lip and chin.  The opposite end of the mask should cover the nose  O:  When giving rescue breaths, maintain a good seal by using both hands to hold the mask in place.  O:  Maintain an open airway using head tilt chin lift.  O:  Give two breaths  Watch to see if chest is rising and falling.  Repeat 2 breaths every thirty compressions  O:  Judge's Comments:  Follow the AED's automated prompts  When the AED prompts you to give a shock the team should:	23 23 23
The opposite end of the mask should cover the nose  O: When giving rescue breaths, maintain a good seal by using both hands to hold the mask in place.  O: Maintain an open airway using head tilt chin lift.  Give two breaths  Watch to see if chest is rising and falling.  Repeat 2 breaths every thirty compressions  O: Judge's Comments:  Follow the AED's automated prompts  When the AED prompts you to give a shock the team should:	23
the mask in place.  Maintain an open airway using head tilt chin lift.  Give two breaths  Watch to see if chest is rising and falling.  Repeat 2 breaths every thirty compressions  Judge's Comments:  Follow the AED's automated prompts  When the AED prompts you to give a shock the team should:	23
Give two breaths  Watch to see if chest is rising and falling.  Repeat 2 breaths every thirty compressions  Judge's Comments:  Follow the AED's automated prompts  When the AED prompts you to give a shock the team should:	. 2(3)
Watch to see if chest is rising and falling.  Repeat 2 breaths every thirty compressions  Judge's Comments:  Follow the AED's automated prompts  When the AED prompts you to give a shock the team should:	×
Repeat 2 breaths every thirty compressions  Judge's Comments:  Follow the AED's automated prompts  When the AED prompts you to give a shock the team should:	2(2)
Judge's Comments:  Follow the AED's automated prompts  When the AED prompts you to give a shock the team should:	43
Follow the AED's automated prompts  When the AED prompts you to give a shock the team should:	13
When the AED prompts you to give a shock the team should:	
	23
Stand clear	
C/	. 2 3
Say "I'm clear, you're clear, everybody's clear."	
Make sure that no one is touching the person in cardiac arrest during analyze and shock modes.	. 2 3
Judge's Comments:	. 2 3

Page 5 Merits Subtotal

CDP Page 142	Page 6
CPR Rescuer #3	_
Proper hand placement, place the heel of one hand on the idle of the person's chest.	0 1 2(3)
Place the other hand on top.	0123
Place the other hand on top.  Do 30 compressions. (Compression depth 5cm (2 inches)	<b>(1)</b> 2 3
Allow the chest to recoil after each compression.	0123
Judge's Comments: Hadly for ched pt	
Rescue Breather #3	
Set up personal pocket mask	0 1 2(3)
Place the mask so that it covers the person's mouth and nose.	0 1 2(3)
Position the lower rim of the mask between the person's lower lip and chin.  The opposite end of the mask should cover the nose	012B 012B
When giving rescue breaths, maintain a good seal by using both hands to hold the mask in place.	0123
Maintain an open airway using head tilt chin lift.	0123
Give two breaths	0123
Watch to see if chest is rising and falling.	0 1 2(3)
Repeat 2 breaths every thirty compressions	0123
Judge's Comments:	•

	Page 7
Follow the AED's automated prompts  Shock Addish	0 1 2(3)
When the AED prompts you to give a shock the team should:	
Stand clear	012(3)
Say "I'm clear, you're clear, everybody's clear."	0 1 2(3)
Make sure that no one is touching the person in cardiac arrest during analyze and shock modes.	0 1 23
Judge's Comments:	
CPR Rescuer #4	
Proper hand placement, place the heel of one hand on the idle of the person's chest.	0 1 2(3)
Place the other hand on top.	0 1 2/3
Do 30 compressions	0128
Allow the chest to recoil after each compression.	0128
Judge's Comments:	
Rescue Breather #4	
Set up personal pocket mask	0128
Place the mask so that it covers the person's mouth and nose.	0 1 2/3

	Page 8
Position the lower rim of the mask between the person's lower lip and chin.  The opposite end of the mask should cover the nose	0 1 2(3) 0 1 2(3)
When giving rescue breaths, maintain a good seal by using both hands to hold the mask in place.	0 1 2/3
Maintain an open airway using head tilt chin lift.	0123
Give two breaths	0 1 2(3)
Watch to see if chest is rising and falling.	0123
Watch to see if chest is rising and falling.  Repeat 2 breaths every thirty compressions	0128
Judge's Comments:	
Follow the AED's automated prompts	0 1 2(3)
When the AED prompts you to give a shock the team should:	•
Stand clear	012/3)
Say "I'm clear, you're clear, everybody's clear."	0123
Make sure that no one is touching the person in cardiac arrest during analyze and shock modes.	0123
Judge's Comments:	
CPR Rescuer #5	
Proper hand placement, place the heel of one hand on the idle of the person's chest.	0123
Place the other hand on top.	0 1 2(3)
Do 30 compressions.	0 1 2(3)

Page 8 Merits Subtotal

Allow the chest to recoil after each compression.

012(3)

#### Judge's Comments:

P	
Rescue Breather #5	
Set up personal pocket mask	0123
Place the mask so that it covers the person's mouth and nose.	012/3
Position the lower rim of the mask between the person's lower lip and chin. The opposite end of the mask should cover the nose	012 <u>(3</u> ) 012 <i>(</i> 3)
When giving rescue breaths, maintain a good seal by using both hands to hold the mask in place.	012/3
Maintain an open airway using head tilt chin lift.	Q123
Give two breaths	0113
Watch to see if chest is rising and falling.	012/3
Repeat 2 breaths every thirty compressions	0123
Judge's Comments:	

#### August 22, 2016

# INTERNATIONAL MINE RESCUE COMPETITION 2016 FIRST AID COMPETITION CPR AED

#### **Judges Instructions**

Scoring:

0 = not done

1 = poor attempt

2 = needs improvement

3 = excellent meets all requirements

1. Every line must be scored.

- 2. A score of 0, 1 or 2 must be explained by the judges or the Chief Judge will remove the demerit.
- 3. When a score of 3 is applied, comments are encouraged
- 4. If a team runs out of time a score of 0 will apply to remaining actions

#### **Rough Handling**

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#### **Scenario**

The team will transport the patient with the highest priority from the accident scene to the receiving area (sea containers). Upon arrival at the receiving area the patient will be told the patient is vital signs absent.

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## INTERNATIONAL MINE RESCUE COMPETITION 2016 FIRST AID COMPETITION CPR AED

TEAM: KGHM - COBRAS	
Team Approach	
1. Captain calls in and provides an update	
Team must update control centre	0123
Judge's Comments: Late Bit did it - a rod!	
2. Initial Response	
A team member Assesses patient	0123
Prepares to start CPR	0123
A team member Sets up personal pocket mask	0 1 2 3
A team member Gets the AED	0123
Sets up the AED	0123)

Page 1 Merits Subtotal \_

The opposite end of the mask should cover the nose

Page 2 Merits Subtotal 29

	Page 3
When giving rescue breaths, maintain a good seal by using both hands to hold the mask in place.	0123
Maintain an open airway using head tilt chin lift.	0 1 2(3)
Give two breaths	0123
Watch to see if chest is rising and falling.	0 1 2 3
Repeat 2 breaths every thirty compressions	0123
Judge's Comments:	
6. AED arrives Must be started immediately (without delay)	0123
Open and turn on the AED	0123
Remove any clothing or objects (including Jewelry) from the person that may come in contact with the pads.	0123
Remove any medical patches, including nitroglycerin, nicotine, or hormone.	0123
Ensure that the chest is dry and free of hair so the pads can stick.	0123
Properly place the AED Pads (follow the diagrams on the pads)	012(3)
Pads must be at least 2.5cm (1") between pads when placed on the chest.	0123
Follow the AED's automated prompts  Ful TW AED	Ø123

When the AED prompts you to give a shock the team should:	
Stand clear	0123
Say "I'm clear, you're clear, everybody's clear."	0)1 2 3
Make sure that no one is touching the person in cardiac arrest during analyze and shock modes.	9123
Judges' Comments:  NO Shark advised	
(1)	
CPR Rescuer #2	
Proper hand placement, place the heel of one hand on the idle of the person's chest.	(1)23
Place the other hand on top.	0123
Do 30 compressions	0123
Allow the chest to recoil after each compression.	0123
Judge's Comments:	

Page 4 Merits Subtotal

Rescue Breather #2:	Page 5
Set up personal pocket mask	0123
Place the mask so that it covers the person's mouth and nose.	0123
Position the lower rim of the mask between the person's lower lip and chin. The opposite end of the mask should cover the nose	0 1 23 0 1 23
When giving rescue breaths, maintain a good seal by using both hands to hold the mask in place.	0123
Maintain an open airway using head tilt chin lift.	0123
Give two breaths	0 1 2(3)
Watch to see if chest is rising and falling.	0123
Repeat 2 breaths every thirty compressions	0123
Judge's Comments:	
Follow the AED's automated prompts	0 1 2(3)
When the AED prompts you to give a shock the team should:	
Stand clear	0/1 2 3
Say "I'm clear, you're clear, everybody's clear."	0123
Make sure that no one is touching the person in cardiac arrest during analyze and shock modes.	G123
Judge's Comments:  NO Sinck advised	

CPR Rescuer #3	Page 6
Proper hand placement, place the heel of one hand on the idle of the person's chest.	0123
Place the other hand on top.	0 1 2(3)
Do 30 compressions. (Compression depth 5cm (2 inches) $N_0$	0 12 3
Allow the chest to recoil after each compression.	0123
Judge's Comments:  DID Not Market 211	
Rescue Breather #3	12
Set up personal pocket mask	0123
Place the mask so that it covers the person's mouth and nose.	0123
Position the lower rim of the mask between the person's lower lip and chin.  The opposite end of the mask should cover the nose	0123 0123
When giving rescue breaths, maintain a good seal by using both hands to hold the mask in place.	012
Maintain an open airway using head tilt chin lift.	0123
Give two breaths	0123
Watch to see if chest is rising and falling.	0123
Repeat 2 breaths every thirty compressions	0123
Judge's Comments:	

	Page 7
Follow the AED's automated prompts	0123
When the AED prompts you to give a shock the team should:	
Stand clear	012(3)
Say "I'm clear, you're clear, everybody's clear."	0123
Make sure that no one is touching the person in cardiac arrest during analyze and shock modes.  Judge's Comments:	0123)
Judge's Comments:	
CPR Rescuer #4	
Proper hand placement, place the heel of one hand on the idle of the person's chest.	0 1 2 3
Place the other hand on top.	01(3)
Do 30 compressions	0123
Allow the chest to recoil after each compression.	0123
Judge's Comments:	3.88
Rescue Breather #4	2
nestue Dieatlief #4	
Set up personal pocket mask	0123
Place the mask so that it covers the person's mouth and nose.	0123

	Page 8
Position the lower rim of the mask between the person's lower lip and chin.  The opposite end of the mask should cover the nose	0123
When giving rescue breaths, maintain a good seal by using both hands to hold the mask in place.	0123
Maintain an open airway using head tilt chin lift.	0123
Give two breaths	0123)
Watch to see if chest is rising and falling.	0123
Repeat 2 breaths every thirty compressions	0123
Judge's Comments:	
Follow the AED's automated prompts	012(3)
When the AED prompts you to give a shock the team should:	
Stand clear	0123
Say "I'm clear, you're clear, everybody's clear."	0723
Make sure that no one is touching the person in cardiac arrest during analyze and shock modes.	012(3)
Judge's Comments: Shock advisor	
CPR Rescuer #5	$\bigcirc$
Proper hand placement, place the heel of one hand on the idle of the person's chest.	0123
Place the other hand on top.	012(3)
Do 30 compressions.	0123
	1/2
Page 8 Merits Subtotal	42

Allow the chest to recoil after each compression.

0123

#### Judge's Comments:

Rescue Breather #5	
Set up personal pocket mask	0123
Place the mask so that it covers the person's mouth and nose.	0123
Position the lower rim of the mask between the person's lower lip and chin. The opposite end of the mask should cover the nose	0 1 2/3 0 1 2/3
When giving rescue breaths, maintain a good seal by using both hands to hold the mask in place.  Maintain an open airway using head tilt chin lift.	0123
Give two breaths	0123
Watch to see if chest is rising and falling.	0123
Repeat 2 breaths every thirty compressions	0 1 2(3

Page 9 Merits Subtotal 2

INTERNATIONAL MINE RESCUE COMPETITION 2016 **CASUALTY REPORT** RIGHT LEFT RIGHT LEFT

1 /					
1 hiley	INTERNATIONAL MINE	RESCUE COMPETITION 2016		1	14:4:
Blo	CASUAL	Busins on left How	P	77 0	76° 74° 2
}		Emposius from tool Day			
RIGHT	LEFT	Estading Lin Right EAR			
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BPM 87 82 8. **INTERNATIONAL MINE RESCUE COMPETITION 2016** CASUALTY REPORT LEFT RIGHT RIGHT LEFT

Team 4 KGHM cobras. Arrive a site 10: 29:11 Start clock at 10: 3502 10:36 24 - cartact = Down @ 183750 - No ladder more - in bashet 1039 - No prinary ABC. - ABC. 1039/3/1 82-14. - Chest -- Primary @ 1040.09 - Good one - Sec - 10 4639, - dest-shoulder abduren - Sample - tried. - V/c a 1041 39, - Blanket 0- 104202,

- Blanket 0 104202. - NBC 0 10:44k;29 - 5Ame 82-18

- Good reassuring. ALL talking to him
ABC-105/02.

T- 105720 - Reported vitals Same (NOCheck)

ABC Check 105953. - good one - 82-18.

Leaving Score @ 110454

10F1 Team #4 Sudbury basin Cobras KGHM Can liest as : 4 treat mysty hand 16 1:20 3 140 2100 2140 3:08 3.25 looked at ear say will monitor 3:50 I complete secondary # 7 send # feet o informaphain 403 (07 7-27 let # > Know shehr 735 10:00 13:02 returns check trades places Neck support 47 7 pulse/125 13/12 comes to halk to #1 15:03 1503 switch oggin 16:12 - clacks fire 24:18 checks on 25.32 2550 K7 ask of ass called 26:44 1 /zaxies 47 falky about cular - none put on 27:20 47 taks with #1 18:01 # 2 pus cas I'm recort & Caller suhals on car 2 8:23 #2 reports vitals to #1 2913 30:

leaves

# James Wilson James Juliker. Page. august 23/2016 - TEAM 4 KGHM CABRAS. 00:00 - Start of the Clock 00:26 - Capt approach CI 00:52 - blanket on CI 1:26 #57 #6 approach C2. 1:50 #5 Shute of whill, 2:00 #1 a 10's tension traduca CZ 2:19 #5 asks c2 to left legs. 2:30 #1 asks men how long my 2:42 C2 unclipped from languard 3:13 #5 asho if can walls. 3:16 \$15 asks name. 3:25 Capt Instruct to lay in basket 3148 Mature 40 undo log straps 4:15 # C 1D CI to cap. 4:10 #5 1D abdom buise on CZ 4:54 instructs Prinary + Sec. 5:10 #4 gives # 1 vitals of CZ. 5:38 #5 asks how he is 5:48 # 5 begin attempts sample. 6:02 #5 Continues h. + . + . 6:34 CZ estill supere. 6:44 #5 reports (2 unconcions 6:57 # | instucts plantate on CZ 7/11 # A plking to umonious 7:18 #1 10's CZ as the patient to extract. 7:39 #4+45 Strapping CZ to board. 8:38 # 4 man washing CZ. 8:58 # 5 man cleasure 9:17 #4+#5 Basket Strops 9:23 #1 Instructs vitals after unconcious. 9:56 #4 gives #1 vitals C2. 10:22 #1 days place C1 + C3 in Recovery 10:32 #1 duspects yellvic,

1:18 -> C3 hot extricated from whill treated in 1158 #5 + #1 shows while # 4 stays w / CZ 2:32 12:51 Capt Inspecto C/ 13:11 #5 checks w/ C3 + # 3+ #6 man 13:48 C1 in Com. Spine - 7 HI wassist B.O 14:18 #4 Still attend CZ 15:02 #5 approches C3 15:20 C3 still entangled in abill 15:30 #4 neasures C2 15:40 #5 reminals #14 to reasone CZ 16:25 #1 check cond of CZ W/ #4.
16:44 #5 man leaning on dill hore while #3+#6 treat injures 17:27 H5 man changes glores for (3 18:15 #1 instuct #4 fo talk to CZ 18:39 #1 remends #3,5,6 that C3 is lower leg 19:06 #1 Capt Instruct inte for C3. 19:35 #5 unggesto learning C3 back. 19:54 #5,3,6 Position to more C3 20:22 #5 maparts C3 cupper forso. "lefted 20:48 C3 John on planket # 1 instructs 21:18 # 1 still w/ 21:57 #1 asks #4 how her is #4 gers #1 CZ Vitals 22: 26#5 + #6 splint aim while #3 pplint leg. 22:50#4 still reasone, CZ 23:08 B.O still of CI holding C-Spise #3 reassures C3 reassend CZ, 24:10 #5 checks w/ B.O. 24:40 \$4 continues to reassure CZ 75:00 Buce gives # 1 5:00 ming work 25:21 # 1 instruct # of to take vitals on CZ 7540 # metwer # 6 to Wheek vitals

25 50

Page 3 g \$.

26:10 BO ashs #1 if place Cin R/P on leave 27:05 #H reasons CZ.
27:24 80 10 not low-Spine B.O Place CI, C3 in recovery 27:46 #3,5,6 place 28:19 # 1 tenstuck Ahetcher whaps, already 29:25 instructo to take bashe 29:36 Basket up, bru 29:47 Bure soly we tak 30:04 BID 30:07 B/U. 31:00 41 motuet CPR. 31 32 #3 10's FIAIK left, N 3147 B10 Comp. 32:17 #3 197 Pack 32:39 - 60 m P/M, 2 Vent 32:49 # 6 Vent 32:56 BO Comp 32104 Pad 2 33:11 # 6 Veut 33:18 BO Comp. 33:34 46 VEnt 33:37 # 3 Comp 77:59 # 4 Venl 34:06 # 3 Comp. 34: 14 #4 Vest 34:23 # 3 Long.

34:37 #4 Vent 3438 Capt gives order 34142 #3 comp 35:07 # \$ Veht 35:13 #4 Comp 35:23 AED EVAL 35:32 N/S/A 35:39 AH solver Comp 35:54 45 Vent 35:05 # 4 comp. 36:15 # 5 Vent 36:26 # 4 Comp 36:41 #5 Vant 36:52 #4 Comp. 37:04 80 Vent 37:12 #6 Comp. 37:28 #3 Vent 37:35 #5 way
37:39 AED Fral H/R 37:49 N/S/A 37:52 #6 Comp. 38:04 #3 Vent 38:10 #6 Comp. 38:27 #3 Vent 38:3745 Comp 38:47 BO Rossula 38:50 # 3 Ven 39:16 #4 Vant 39:23 \$5 comp 3927 #3+#4 reasure 39:39 Went 39:54 DINITIP 40:10 = asks for clear, clear, selevered 40:25 = Clear. 41:10 7#/ going over C/C.

JJ Pg/ Team 4 KGHM 0:25 - 1st pt - put a blanket on her 1:03 - #ohn sonextingu sher 1:32 - Fire out 1:33- #3 at pt. #3 1:31 - Drill down 2', Du-capt wants to take down pt. 2 2.44: pt. 2 down 2:55 - # 3 reports broken 1, + arm 14 3:12 Cutting pt. 3 coveralls 3:42 - Planning on laying pt 2 in busket 4:81 - #3doing secondary 417- Pt 2 in basket 4:20- #6 helping #3 @ pt 3 5:14- Pt 2 can gueste hand 6:01 Pt2 Chk indomen 1:23 -> 17 3 banday complete n leg 646-) Pt2 unconscious - #4 reported to 7.08 #3 gd comm it pt int 73

JX P2 Fean U KGHN 7:55 > #3 reports only leg ! + 1 arm - (ad) 8:31 -> Still in drill 4:41 -> pulse + resp gd reported to capt. 9:10 - pt 3 handaged but remains stack 9:50 capt suggest 3/19 arm - try to get 10:21 -> Slinging pt 3:5 arm 10:37 -> Stupped in basket 7 pt. #2 -> #4 acomi 12:02 > Team idle other than #3+6 on pt 12:49 capt going to che pt# 1 scene 13.30 #5 notices that could potentially take 14:19. #4 still lut of 2 -> no movement 14:52 > Cutting pt 3 constrall @ arm 15:30-> #5 assessing "arm cought" 16:35, #5 tells # 3 to support arm on pt. 3 16:57- continued that they can get pt #3 out 17:20 - Decision meide by capt. to get pt 3 ac 17:52 - +3 lays don'tet dawn

Team't KGHM 97 Pg3 18:30 #3, 5+6 working on removing pt3 19:20 # 3 changed glove (ripped) 19:49 # 3 to support leg 20:03 - Jean back wt pt. 3 20:35 - Capt, #6+5 lift pt 3 20:48 - pt 3 down on blanket 21:05 - start splinting leg 21:34 . #5 cht hips 2150 - #5 doing secondary 22:11 - pt # 2+1- still nothing 22:30 - splint under leg (unfolded) 23:04 - Bracing arm 23:53 #5 6 3 + capt. Heating pt 3 24:51 - #4 talking to pt 2 25:00 - Bruce gave Smin warng 25. 40 - Regnes + for vitals on pt 3 de de Done treatin ot 3. 27; 03 - Copt reg both pt 1+3 be put in

KGHM Team 4 27:47 - Pt 3 in recovery position 28:10 La Requesting vita 29:06 - PHI vitals reported gd. 29:49 - MOVING 10 41/1 29195 - Basket Down 30:43 - Arrives up top Capt Reg A 3/: 32 - No mask - send #4
32: 14 - Mask on
32: 56 -> 15t pad being pat in place
1 58 -> 2nd me of pat in #7 compre #6 vent 33-50 -> #3 comp #5 vent 35:04 > # 4 comp # 7 36:48 -> # (e comp # 7 + 3 on cer -) #5 comp #3 her #4 40:00 -> Explanition from mot as to clear - Shoc 25.26 who V2 rome V2 out Hlashed in hand hat #5 Cont had it 24:53 Rell snewent 1 V2 24:16 H5 orles for clasics 29 48 H5 Gill abonen one ment. 23:29 #1 which what lead to bis of consin son -21:90 with to such UD. knowed he was giving up. 20:18 H1 aled Co V3 ramse on the dill covered with a Dhiht. #2 and H) ~ Vh 21:40 V3 13 SAIL 20,55 44.5 stl wik 1/2 lading (mc 581-5 20:34 HI ald for vitals on V2 20:16 His aled to V3 he dap Baranths #4 gare witels to tol. and to fat VI V3 in recovery ros V2 perfortes 18:57 dismosin armit moderism of injury R V2 17:54 HI and I are Still discussions what to be with VI U3 #4 Stryo with 12. 16:20 \$1 Buch -th VI 15:59 HS leading to VI #4 51/1 -12 V2 15:07 #5 Poul to V2 14:54 #15 mm Leding to V3 14:50 #2 Still igh VI holding his head VI is sitting dam with a Blunket. 15:37 HI clocks line and hed that to V2 " Cres we will get you at of here. 13.22 # 1 wh V3. 12:46 H5 puting slows on. 12:46 H1 Dings he Splight to VI. "Where are the Straps?" 11:44 H3 land Blooked Heling V3 11:37 #1 shel # 4 to heep Whin to V2 1047 #1 Gives diretin a hory to lay de 1029 HI offer half or V3 (Not see ded) 9:49 \$6 5 in ppiha to 11/4 V3 9:34 present of V3 about 9:20 \$1 belied V3

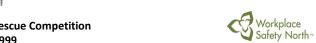
9:02 V3 down a the Dlatet. 9.00 pl used, on the Spint or U3 /es #3 Intalls splint and for #1 held #4 Lebt leg. #1 nd 3 5:06 H3 Still on the Splint Bruce calls for 5 min #1 dachin - #4. ashing 4:17 41 华 V(. 4.17 Splint is - VI and so to seven cshe correct.up leaves V3 in saconery to put him is recovery 3:00 decided that they all get but to him 1:20 \$1 to Sprop V2 + Strais sotta rell from Dy VI

K6HM Cobras 29:34 #1 approach 94.25 Matt to Sky Ah VI line out. 18:06 n. 1/ 1/2. then long V2 las been honging 97:30 #1 V3 and gave into to 41. han you hooked 26:32 the Bash 24:03 V2 35.55 # 4 M 打36 #



# APPENDIX D - HIGH ANGLE ROPE RESCUE SCENARIO







RESCUE SYSTEM SET UP	Merit Points
Mirrored, main/belay, and self-rappel systems are all acceptable for the Line 1 anchored sufficiently  TOLDTO MORE AN CITOR	nis scenario. (0-5)+
Line 1 rigged in an adequate lowering configuration	(0-3)+
Line 2 anchored sufficiently  — TULD TO MOVE AN CHOR	(0-5)+
Line 2 rigged in an adequate lowering configuration	(0-3)+
Edge protection used for rescue lines	(0-3)+3
Adequate rescue knots used and tied properly	(0-5)+
Rescue lines secured (locked/tied off) when unattended *	(0-10)+
TEAM: CANADA - SUDBURY K	GHM



One operator designated fo	or each lowering system	(0-3)+
	TIME FIRST RESCUER R	EADY FOR LOWERING:
		34
TEAM:		



TEAM SAFETY  All occurrences are to be explained and scored in the appropriate section. The to be noted in the space on the right.		merit Points h section will
All team members to maintain 100% fall arrest while at top of chasm (Team will be stopped and corrected by judges)	(0-20)	0_
Suspended rescuer to maintain connection with 2 rescue lines at all times	(0-20)	0
Poor team discipline (arguments, not following direction, housekeeping)		0
Unsafe procedure attempted (Team will be stopped and corrected by judges)	(0-20)	0
ADDITIONAL NOTES		33 +34 67
TOTAL MERIT TOTAL DEMERIT		- 🔊
TEAM:		



TEAM:



(0-5)+ <u>#</u>
(0-5)+
(0-3)+
(0-5)+ 4
(0-3)+
(0-3)+3
(0-5)+ 4
(0-10)+



One operator designated for each lowering system	(0-3)+
TIME FIRST RESCUER R	EADY FOR LOWERING:

TEAM: Sudbury / KGHM





RESCUE CASUALTY #1 – SUSPENDED & UNCONSCIOUS  Casualty #1 identified as priority	(0-5)+_	Merit Points
Rescuer secured to both rescue lines	(0-5)+_	5
Rescuer lowered to casualty  NICE - CONTROLLED USED DISTANCES		8
Both rescue lines attached to casualty's harness  ONLY ISSUE WAS HOOKED TO ONLY  ON HARVESS	(0-5)+_	4 RING
Tension transferred from casualty's ropes to rescue lines  HAD TO SWITCH ROPES A RIT (ROPES CRO		
Casualty #1 lowered to ground level with rescuer  RIGHT INTO BASKET, RESCUE WAS BELOW		3 SUALTY
Casualty #1 treated for suspected suspension trauma (Semi-seated, slowly released)  RELEASED LEG STRAPS NO SEMI-SEAT  NO ABC's	_	traps)
TEAM: Kaum		

(0-3)+\_3



Casualty #1 loaded into stretcher and basket for tra	nsport (0-3)+ 3
GOOD CHECK OF BASKET, RIGH	T INTO BASKET
ALL STRAPS DONE! UP	
	TIME CASUALTY #1 ON GROUND:
	22
	57
TEAM:	
1 1/1 2171.	



TEAM SAFETY	<b>Demerit Points</b>
All occurrences are to be explained and scored in the appropriate section. To be noted in the space on the right.	he total for each section will
All team members to maintain 100% fall arrest while at top of chasm (Team will be stopped and corrected by judges)	(0-20)
Suspended rescuer to maintain connection with 2 rescue lines at all times	(0-20)-
Poor team discipline (arguments, not following direction, housekeeping)	(0-10)-
Unsafe procedure attempted (Team will be stopped and corrected by judge	es) (0-20)
ADDITIONAL NOTES	
	RIT POINTS: +
	FINAL SCORE:



COMPLETION TIME: 43:46

JUDGE'S SIGNATURE: 1) and I have

TEAM: Sudbury / KGHM



# **APPENDIX E – THEORY ASSESSMENT**







2016 IMRC - Tuesday, August 23, 2016

Group 1 - 10:30	1st Attempt	x 2 pts	2nd Attempt	x 1 pts	Incorrect	TOTAL SCORE
State Militarized Mine Rescue Squad	9	18	4	4	7	22
Guizhou Yonggui Energy Company	6	12	4	4	10	16
China Pingmei Shenma Group	7	14	2	2	11	16
Shannxi Coal and Chemical Industry	13	26	4	4	3	30
Group 2 - 12:30PM						
Bytom, Weglokos Kraj	14	28	3	3	3	31
Scorpions Team Katowice	7	14	6	6	7	20
Gray Wolfs	7	14	6	6	7	20
KGHM White Eagles	14	28	1	1	5	29
Tara Mine Rescue	12	24	3	3	5	27

2016 IMRC - Wednesday, August 24, 2016

Group 1 - 10:30	1st Attempt	x 2 pts	2nd Attempt	x 1 pts	Incorrect	TOTAL SCORE
Manitoba - Vale Manitoba Operations	8	16	5	5	7	21
Sudbury Basin Cobras, KGHM Sudbury	15	30	2	2	3	32
Vale West Mines, Sudbury	15	30	3	3	2	33
MSHA Mine Rescue Emergency Unit 1	15	30	2	2	3	32
Group 2 - 12:30PM						
Emercom of Russia	10	20	7	7	3	27
JSC < <suek>&gt;</suek>	8	16	7	7	5	23
Singareni	10	20	6	6	4	26
Coal India Ltd.	8	16	5	5	7	21
Vinacomin Team	8	16	5	5	7	21

2016 IMRC - Thursday, August 25, 2016

Group 1 - 10:30	1st Attempt	x 2 pts	2nd Attempt	x 1 pts	Incorrect	TOTAL SCORE
HPB, a.s. Slovakia	13	26	3	3	4	29
Peabody Energy Wambo Coal	10	20	5	5	5	25
Goldcorp Americas	16	32	1	1	3	33
Quebec - Goldex Mine Agnico Eagle	12	24	4	4	4	28
Compass Minerals - Goderich Mines	17	34	1	1	2	35
Group 2 - 12:30PM						
Saskatoon, Cameco Mcarthur River	12	24	3	3	5	27
Kirkland Lake Gold	15	30	3	3	2	33
Columbia Coal Company	6	12	2	2	12	14
Fiebre de Oro	6	12	6	6	8	18

Standings	Teams	Score	%	score out of 10	_
1	Compass Minerals - Goderich Mines	35	87.5%	8.75	
2	Vale West Mines, Sudbury	33	82.5%	8.25	
3	Goldcorp Americas	33	82.5%	8.25	
4	Kirkland Lake Gold	33	82.5%	8.25	_
5	Sudbury Basin Cobras, KGHM Sudbury	32	80.0%	8	_
6	MSHA Mine Rescue Emergency Unit 1	32	80.0%	8	_
7	Bytom, Weglokos Kraj	31	77.5%	7.75	rewrote
8	Shannxi Coal and Chemical Industry	30	75.0%	7.5	
9	KGHM White Eagles	29	72.5%	7.25	rewrote
10	HPB, a.s. Slovakia	29	72.5%	7.25	_
11	Quebec - Goldex Mine Agnico Eagle	28	70.0%	7	_
12	Tara Mine Rescue	27	67.5%	6.75	_
13	Emercom of Russia	27	67.5%	6.75	_
14	Saskatoon, Cameco Mcarthur River	27	67.5%	6.75	_
15	Singareni	26	65.0%	6.5	_
16	Peabody Energy Wambo Coal	25	62.5%	6.25	_
17	JSC < <suek>&gt;</suek>	23	57.5%	5.75	_
18	State Militarized Mine Rescue Squad	22	55.0%	5.5	rewrote
19	Manitoba - Vale Manitoba Operations	21	52.5%	5.25	_
20	Coal India Ltd.	21	52.5%	5.25	_
21	Vinacomin Team	21	52.5%	5.25	
22	Scorpions Team Katowice	20	50.0%	5	
23	Gray Wolfs	20	50.0%	5	
24	Fiebre de Oro	18	45.0%	4.5	
25	Guizhou Yonggui Energy Company	16	40.0%	4	rewrote
26	China Pingmei Shenma Group	16	40.0%	4	rewrote
27	Columbia Coal Company	14	35.0%	3.5	

What is the PRIMARY function of the Counterlung or Breathing bag?

- a. Assists the wearer in breathing when he gets tired
- b. Collection point of Oxygen enriched diluent
- c. Allows the breathing loop to expand and or contract when the user breathes
- d. Allows for the collection of water vapour through the use of a water trap

The methods of extinguishing of a wet chemical extinguisher are?

Primary \_\_\_\_\_\_Secondary\_\_\_\_

- a. Cooling
- b. Chain inhibition
- 1- c. Oxygen depletion
- 2- d. Vapour suppression
- e. Heat transfer cooling
- f. Cooling

Can we click and drag these into place like you did with the ropes question?



What is the stream reach of this fire extinguisher?

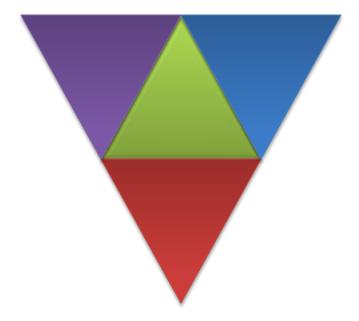
- a. 30-40 ft (9.14-12.19 m)
- b. 4-6 ft (1.22-1.83 m)
- c. 3-8 ft (.91-2.44 m)
- d. 5-20 ft (1.52-6.09 m)

The temperature at which sufficient vapours are being generated to sustain chemical reaction is known as what?

- a. flash point
- b. lower flammable limit
- c. fire point
- d. autoignition temperature
- e. flashover

The chemical decomposition of a solid material by heating is known as?

- a. vaporization
- b. combustion
- c. endothermic
- d. pyrolosis



The four components of the fire tetrahedron are?

- a. Combustion, chemical reaction, oxidizing agent, heat
- b. Radiation, chemical reaction, oxidizing agent, heat
- c. Reducing agent, chemical reaction, oxidizing agent, heat
- d. Ignition, chemical reaction, oxidizing agent, heat



This point in the stream is known as the \_\_\_\_\_?

- a. low pressure point
- b. breakover point
- c. handline
- d. hydraulic maximum

What chemical reaction is taking place here?

a. Ca (OH)2+ CO ←→ CaCO2+ H2O

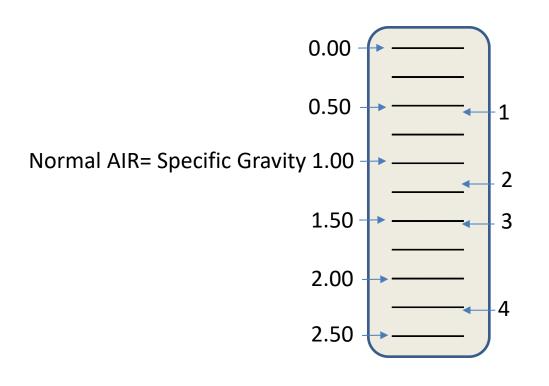


b. Ca (OH)2+ CO2 ←→ CaCO3+ H2O

c. NaHCO3+ CO2 ← → NaC2O3+ H2O

d. NaHCO3+ CO ←→ 2CO2+ NaOH

**Dräger**safety



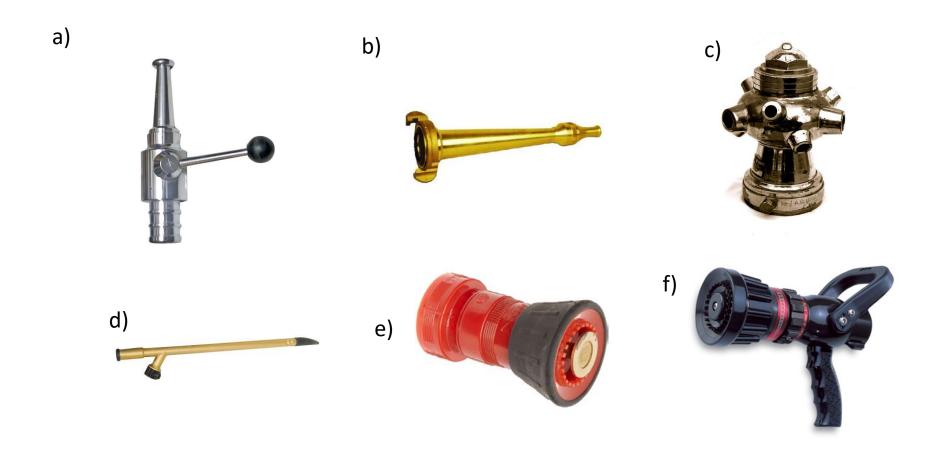
a. 
$$1 = CH4$$
,  $2 = NO2$ ,  $3 = SO2$ ,  $4 = H2S$ 



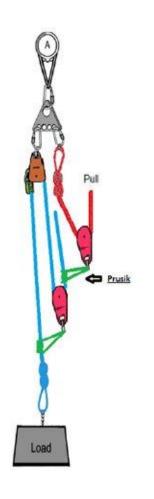
# What type of nozzle is this?

- a. Crestar
- b. Rockwood
- c. Bresnan
- d. Swivel

Which one of these is a cellar nozzle?



What is the mechanical advantage of this setup?



a. 3:1

b. 5:1

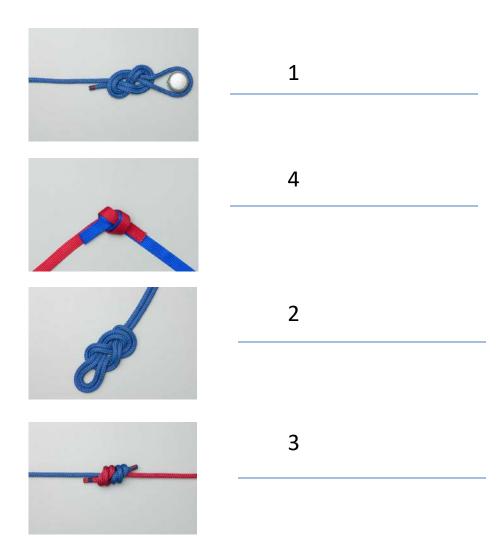
c. 6:1

d. 2:1

e. 4:1

f. 9:1

# Place these knots in order from strongest to weakest



Which one of these is NOT considered a Self Contained Breathing apparatus?

- a. Oxygen or Self Generating
- b. Air Purifying/Respirator
- c. Oxygen rebreather
- d. Pressure Demand



What type of nozzle is this?

- a) Basic fog nozzle
- b) Constant pressure nozzle
- c) constant gallonage
- d)constant/select nozzle

Which is not a method that firefighting foam uses to extinguish fires?

- a) separating
- b) cooling
- c) smothering
- d) evaporation
- e) penetrating

What is the boiling point and melting point of Methane Gas CH4?

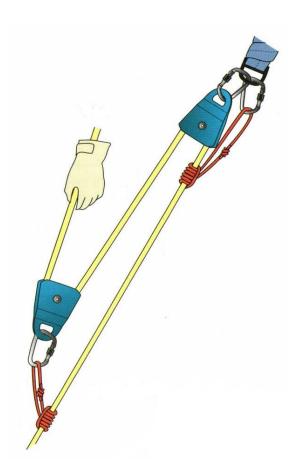
- a) 100 °C (212 °F) 47 °C (117 °F)
- b) -162 °C (-260 °F) -182.5 °C (-297 °F)
- c) 265 °C (509 °F) 97.4 °C (207 °F)
- d) -15 °C (5 °F) -55 °C (-67 °F)

Who successfully tested their prototype of a flame safety lamp in 1816?

- a) Sir Edmund Hillary
- b) Sir John A. MacDonald
- c)Sir Humphry Davy
- d) Sir William Clanny

What is the name of this rope configuration?

- a) Piggy back ratchet system
- b) 3:1 Z-rig
- c) 2:1 raising system
- d) 5:1 Block and tackle



# Match the safety lamp to its proper name









The Clowes Lamp

The Marsaut lamp

The Clanny Lamp

The Stephenson Lamp

Question 1

### What is the name of this lamp



#### Theory - Retest

- a. The Davy Lamp
- b. The Stephenson Lamp
- c. The Clanny Lamp
- d. The Mueseler Lamp
- e. The Marsaut Lamp
- f. The Clowes Hydrogen Lamp
- g. The Electric Cap Lamp
- h. The Flame-safety Lamp
- i. Garforth Lamp

At what stage of fire development does backdraft occur?

- a. decay stage
- b. fully developed stage
- c. growth stage
- d. incipient stage

In actual operation fire stream angles between \_\_\_\_ and \_\_\_\_ provide maximum Effective horizontal reach?

- a. 50-54 degrees
- b. 40-45 degrees
- c. 27-32 degrees
- d. 30-34 degrees



Import-Export

What is guaranteed to be created with chemical oxygen breathing apparatus?

- a. heat
- b. CO
- c. KOH
- d. water

## Description

- SG = 1.191
- Colour = None
- Taste = None
- Odour = Sulfur
- Explosive Range = 4.3-45%

#### Gas

- a. Acetylene
- b. Hydrogen Sulfide
- c. Nitrogen
- d. Ammonia
- e. Sulfur Dioxide

Most fog nozzles are designed to operate at \_\_\_\_\_?

- a. 75 psi (517 kPa)
- b.100 (689 kPa)
- c. 150 (1034 kPa)
- d. 250 (1724 kPa)

What is the breaking strength of a Pro series single pulley?

- a. 38 kN
- b. 13.5 kN
- c. 72 kN
- d. 57 kN

# What is the breaking strength of a rescue rack?



- a. 32 kN
- a. 13.5 kN
- b. 38 kN
- d. 64 kN

Which statement best describes the chemical chain reaction that produces heat and flame?

- a. Rapid Oxidation of fuel
- b. Material unites with Oxygen rapidly
- c. Rapid Chain Reaction
- d. Chemical Reaction

When deploying Foam which one of the following best describes its effect on a CLASS A Fire?

- a. Separating the fuel and the fire
- b. Cooling the Temperature of the Fire
- c. Smothering and preventing release of Flammable vapours
- d. Penetrating due to low surface tension of agent

In an Oxygen Rebreather Apparatus which of the following systems would control the flow of 100% Oxygen from the Cylinder to the wearer?

- a.The Oxygen Pressure/Regulator/Valve/Pnuematics Sensor/Alarm system
- b. The Counterlung/hoses/canister
- c. Facemask
- d. Demand and Pressure release Valves

Which of the following chemicals should not be used on a Class B and C Fire?

- a. Monoammonium phosphate
- b. Carbon Dioxide
- c. Sodium Chloride
- d. Sodium Bicarbonate
- e. Potassium Chloride
- f. Potassium Bicarbonate

Which Gas will produce the following symptoms? At Concentrations of 7% to 10% this gas will cause dizziness, headache, visual and hearing dysfunction and unconsciousness within a few minutes to an hour.

- A. NO<sub>2</sub>
- B. 0<sub>2</sub> Deficiency
- C. C<sub>2</sub>H<sub>4</sub>
- D. CO<sub>2</sub>
- E. H<sub>2</sub>

In a classic rebreather apparatus which of the following parts would NOT be found in the system design?

A Mouthpiece

B O<sub>2</sub> Cylinder

C Breathing Bag or Lung

D. Demand Valve (Demand valves or regulators will be found on Positive Pressure Demand apparatus only)

E. Over Pressure Valve

Which of these is not a rope rescue anchor system?

- a) Contingency
- b) Load distributing
- c) Load sharing
- d) Load reducing
- e) Simple
- f) Two point load

Which is not an alternate term for a spray nozzle?

- a) fog nozzle
- b) adjustable nozzle
- c) smooth bore nozzle
- d) adjustable fog nozzle

Which is not a method that firefighting foam uses to extinguish fires?

- a) separating
- b) cooling
- c) smothering
- d) evaporation
- e) penetrating

This gas is slightly lighter than air. It is flammable and explosive in mixtures with air in concentrations between 12.5 and 74 %. It is toxic because it blocks the ability of the hemoglobin in the blood to carry Oxygen from the lungs to the muscles and other tissue in the human body.

- a) CO
- b) CH4
- c) CO2
- d) H2O

At what concentration will H2S lead to eye damage?

- a) 10- 20 ppm
- b) 50-100 ppm
- c) 320-530 ppm
- d) 800ppm

When using ropes both for training and rescue what is the minimum safety factor required?

- a) 50:1
- b) 25:1
- c) 10:1
- d) 15:1

Theory rest (Answer Sheet)
1) What Type of Safety Lamp is this?
a. The Davy Lamp
b. The Stephenson Lamp
c. The Clanny Lamp
*d. The Mueseler Lamp
e. The Marsaut Lamp
f. The Clowes Hydrogen Lamp
g. The Electric Cap Lamp
h. The Flame-safety Lamp
i. Garforth Lamp
2) The methods of extinguishing of a wet chemical extinguisher are?
a) Cooling
b)Chain inhibition
*1- c) Oxygen depletion
d) Heat transfer cooling
*2- e) Vapour suppression
f) Cooling
3) What is the stream reach of this fire extinguisher?
a. 30-40 ft (9.14-12.19 m)
b. 4-6 ft (1.22-1.83 m)
*c. 3-8 ft (.91-2.44 m)

d. 5-20 ft (1.52- 6.09 m)

4) At what stage of fire development does backdraft occur?
* a) decay stage
b) fully developed stage
c) growth stage
d) incipient stage
5) The temperature at which sufficient vapours are being generated to sustain chemical reaction is known as what?
a) flash point
b) lower flammable limit
*c) fire point
d) autoignition temperature
e) flashover
6) The chemical decomposition of a solid material by heating is known as?
a) vaporization
b) combustion
c) endothermic
*d) pyrolosis
7) The four components of the fire tetrahedron are?
a) Combustion, chemical reaction, oxidizing agent, heat
b) Radiation, chemical reaction, oxidizing agent, heat
* c) Reducing agent, chemical reaction, oxidizing agent, heat
d) Ignition, chemical reaction, oxidizing agent, heat

8) This point in the stream is known as the?
a) low pressure point *b) breakover point c) handline d) hydraulic maximum
9) What chemical reaction is taking place here?
a) Ca (OH)2+ CO ←→ CaCO2+ H2O
*b) Ca (OH)2+ CO2 ←→ CaCO3+ H2O
c) NaHCO3+ CO2 ←→ NaC2O3+ H2O
d) NaHCO3+ CO ←→ 2CO2+ NaOH
10) Place in order of SG from lowest to highest
a) 1= CH4, 2= NO2, 3= SO2, 4= H2S
b) 1= NO2, 2= CH4, 3= H2S, 4= NO2
* c) 1= CH4, 2= H2S, 3=NO2, 4=SO2
d) 1= CH4, 2= NO2, 3= H2S, 4=SO2
11) In actual operation fire stream angles between and provide maximum Effective horizontal reach?
a) 50-54 degrees
b) 40-45 degrees
c) 27-32 degrees
*d) 30-34 degrees
12) What type of nozzle is this?
a) Crestar
b) Rockwood

*c) Bresnan
d) Swivel
13) What is guaranteed to be created with chemical oxygen breathing apparatus?
*a) heat
b) CO
с) КОН
d) water
14) What are the limiting factors that affect the reach of a fire stream?
*a)gravity
*b)water velocity
c)water temperature
*d)fire stream pattern
e)air temperature
*f)wind
*g)water droplet friction with air
h)solids content of water
15)What is this gas described here:
<ul> <li>SG = 1.191</li> <li>Colour = None</li> <li>Taste = None</li> <li>Odour = Sulfur</li> <li>Explosive Range = 4.3-45%</li> <li>a) Acetylene</li> <li>*b) Hydrogen Sulfide</li> </ul>
c) Nitrogen

d) Ammonia

e) Sulfur Dioxide
16) Most fog nozzles are designed to operate at?
a) 75 psi (517 kPa)
*b)100 (689 kPa)
b) 150 (1034 kPa)
d) 250 (1724 kPa)
17) Which one of these is a cellar nozzle?
a)
b)
*c)
d)
e)
f)
18) What is the mechanical advantage of this setup?
a) 3:1
b) 5:1
*c) 6:1
d) 2:1
e) 4:1
f) 9:1
19) What is the breaking strength of a Pro series single pulley?
* a) 38 kN
b) 13.5 kN
c) 72 kN
d) 57 kN
20) Place these knots in order from strongest to weakest
a) 1,2,4,3
21) What is the breaking strength of a rescue rack?

a)32 kN
---------

- \* b)13.5 kN
  - a) 38 kN
  - d) 64 kN
- 22) Which one of these is NOT considered a Self Contained Breathing apparatus?
- a) Oxygen or Self Generating
- \*b) Air Purifying/Respirator
- c) Oxygen rebreather
- d) Pressure Demand
- 23) Which statement best describes the chemical chain reaction that produces heat and flame?
- a) Rapid Oxidation of fuel
- \* b) Material unites with Oxygen rapidly
- c) Rapid Chain Reaction
- d) Chemical Reaction
- 24) When deploying Foam which one of the following best describes its effect on a CLASS A Fire?
  - a) Separating the fuel and the fire
  - b) Cooling the Temperature of the Fire
  - c) Smothering and preventing release of Flammable vapours
- \*d) Penetrating due to low surface tension of agent
- 25) In an Oxygen Rebreather Apparatus which of the following systems would control the flow of 100% Oxygen from the Cylinder to the wearer?
- \*a)The Oxygen Pressure/Regulator/Valve/Pnuematics Sensor/Alarm system
- b) The Counterlung/hoses/canister
- c) Facemask
- d) Demand and Pressure release Valves
- 26) What is the PRIMARY function of the Counterlung or Breathing bag?

- a) Assists the wearer in breathing when he gets tired
- b) Collection point of Oxygen enriched diluent
- \*c) Allows the breathing loop to expand and or contract when the user breathes
- d) Allows for the collection of water vapour through the use of a water trap
- 27) Which of the following chemicals should not be used on a Class B and C Fire?
- a)Monoammonium phosphate
- b)Carbon Dioxide
- \*c) Sodium Chloride
- d) Sodium Bicarbonate
- e) Potassium Chloride
- f) Potassium Bicarbonate
- 28) Tests for Methane (CH<sub>4</sub>) must be made:
- \* a) At the back or roof
- b) At chest height
- c) Below the waist
- d) Near the floor
- 29) Which Gas will produce the following symptoms? At Concentrations of 7% to 10% this gas will cause dizziness, headache, visual and hearing dysfunction and unconsciousness within a few minutes to an hour.
- a) N0<sub>2</sub>
- b)0<sub>2</sub> Deficiency
- c) C<sub>2</sub>H<sub>4</sub>
- \*d) CO<sub>2</sub>
- e) H<sub>2</sub>
- 30) In a classic rebreather apparatus which of the following parts would NOT be found in the system design?
  - a) Mouthpiece
  - b) O<sub>2</sub> Cylinder
  - c) Breathing Bag or Lung
  - \*d) Demand Valve

- e) Over Pressure Valve
- 31) Which of these is not a rope rescue anchor system?
  - a) Contingency
  - b) Load distributing
  - c) Load sharing
  - \*d) Load reducing
  - e) Simple
  - f) Two point load
- 32) Which is not an alternate term for a spray nozzle
- a) fog nozzle
- b) adjustable nozzle
- \*c) smooth bore nozzle
- d) adjustable fog nozzle
- 33) What type of nozzle is this?
- a) basic fog nozzle
- b) constant pressure nozzle
- \*c) constant gallonage nozzle
- d)constant/select nozzle
- 34) What is the most common nozzle control valve?
- a) rotary control valve
- b) slide valve
- \*c) ball valve
- d) butterfly valve
- 35) Which is not a method that firefighting foam uses to extinguish fires?
- a) separating
- b) cooling
- c) smothering
- \*d) evaporation
- e) penetrating
- 36) Which is not a method that firefighting foam uses to extinguish fires?
- a) separating

- b) cooling
- c) smothering
- \*d) evaporation
- e) penetrating
- 37) What is the boiling point and melting point of Methane Gas CH4?
  - a) 100 °C (212 °F) 47 °C (117 °F)
- \*b) -162 °C (-260 °F) -182.5 °C (-297 °F)
- c) 265 °C (509 °F) 97.4 °C (207 °F)
- d) -15 °C (5 °F) -55 °C (-67 °F)
- 38) Who successfully tested their prototype of a flame safety lamp in 1816?
  - a) Sir Edmund Hillary
  - b) Sir John A. MacDonald
- \* c)Sir Humphry Davy
  - d) Sir William Clanny
- 39) This gas is slightly lighter than air. It is flammable and explosive in mixtures with air in concentrations between 12.5 and 74 %. It is toxic because it blocks the ability of the hemoglobin in the blood to carry Oxygen from the lungs to the muscles and other tissue in the human body.
- \* a) CO
  - b) CH4
  - c) CO2
  - d) H2O
- 40) At what concentration will H2S lead to eye damage?
- a) 10- 20 ppm
- \*b) 50-100 ppm
- c) 320-530 ppm
- d) 800ppm
- 41) When using ropes both for training and rescue what is the minimum safety factor required?
- a) 50:1

- b) 25:1
- \*c) 10:1
- d) 15:1
- 42) What is the name of this rope configuration?
- a) Piggy back ratchet system
- \*b) 3:1 Z-rig
- c) 2:1 raising system
- d) 5:1 Block and tackle



# APPENDIX F – TECHNICIAN BENCHING EQUIPMENT MAINTENANCE COMPETITION





KGHM Subsuell
App#2

\*\*\*Battery Expires January 16, 2017;

Soda Lime Expires November 23, 2016\*\*\*

Technician's Report	Result and Units	Defects
Function Test Date (month as Jan – Dec)	Aug 24	
First initial, last name of technician	Aug 29 B.MELS	
Visual Inspection (incl. belt & lanyard)	OK	O-Ring Pos soda tabe Value for PRV
O <sub>2</sub> Cylinder Hydrostatic Test	OK	
Face Mask Inspection	OR	Mask Strap Plipped
Low Pressure Warning	0.8 mbor	
Inhalation Valve	OR	
Exhalation Valve	OR	
Drain Valve	OK TISLET	
Positive Pressure Leak Test	OK	
Pressure Relief Valve Activation	3. Smber	
High Pressure Leak Test		
Constant Dosage Rate		
Minimum Valve Activation Pressure		
Bypass Valve		
Cylinder Pressure		
Low Pressure Alarm		
Battery Test		
Date battery to be replaced		
Date soda lime to be replaced (6 months)		

TECHNICIAN SIGNATURE:	KGHM		14
		0/0/	

12:01

## 2016 International Mine Rescue Competition

1.	Locate twisted buckle on head strap of face mask	(2)
2.	Repair twisted buckle on Head strap of facemask	(2)
3.	Locate missing gasket on pressure relief valve	(2)
4.	Install proper gasket on pressure relief valve	(2)
5.	Locate missing gasket on reducer where bottle attaches	(2) 🗸
6.	Install proper gasket on reducer	(2)
7.	Locate missing anti-crush rings	(2)
8.	Install 2 anti-crush rings	(2)/
9.	Locate missing filter ion switch box	(2)
10.	Install filter on switch box	(2)
11.	Locate missing valve in pressure relief valve	(2)
12.	Install valve in pressure relief valve	(2)
13.	Locate leak in soda lime canister	(2)/
14.	Replace parts from bad canister, pack and Install new canister	(2)
15.	Locate high dosage caused by missing gasket under minimum valve lever	(2) 2
16.	Install proper gasket and tighten minimum valve lever	(2)
17.	Changing parts (cylinder, bag, cooler, hoses, mask,) without verification apply 1 demerit per item CHAUGING SCNTINAL BOT	X
	RAN OUT OF TIME	the con
	Total Demerits	790
Time:_	3000	2
	Dai Boldes	
ممتدادين	1) long 1) londer	

Judges Demerit Sheet for Incorrect Units	1 Demerit for Wrong Unit	Defects
Function Test Date (month as Jan – Dec)	8 No year	
First initial, last name of technician	/	
Visual Inspection (incl. belt & lanyard)	V	INSTALL CRUSH RING
O <sub>2</sub> Cylinder Hydrostatic Test	V	
Face Mask Inspection	V	37 MAR 2 100 101
Low Pressure Warning	/	
Inhalation Valve	V	10000
Exhalation Valve	V	
Drain Valve	V	
Positive Pressure Leak Test 7.5 - 6.6 Passage	V	
Pressure Relief Valve Activation		
High Pressure Leak Test	Done But Thus	D NOT REPAIRED
Constant Dosage Rate	1	
Minimum Valve Activation Pressure	1	
Bypass Valve		
Cylinder Pressure		
Low Pressure Alarm		
Battery Test		
Date battery to be replaced		
Date soda lime to be replaced (6 months)	}	

Removieu LID ON SCRUBBER 12.01

## **Technician Summary Sheet**

TECHNICIAN:	BRIAN	Helis		DATE:
			Sudbury	Aus 24/16.

	DEMERIT CHARGED;
GENERAL PROBLEM	8 8 2
FUNCTION TESTS	<b>\$</b> 9
TIME 12:01 CLIP ON CANNISTER	
INCORRECT UNITS USED	
DEFECTS NOT DOCUMENTED    DION T REPORT GASKET ON REDUCENT  OION T REPORT CRUSH RING REPINCED  DION T REPORT LEAK IN SOOA LINE	3
TOTAL DEMERITS	14' the
SIGNATURE OF JUDGE	10
Den Belode	

COMMENTS:	A LIME .	- DIDN'T LEVEL IT	TO 600D
	-		

### 2016 International Mine Rescue Competition

1.	Locate twisted buckle on head strap of face mask	(2)
2.	Repair twisted buckle on Head strap of facemask	(2)
3.	Locate missing gasket on pressure relief valve	(2)
4.	Install proper gasket on pressure relief valve	(2) 💍
5.	Locate missing gasket on reducer where bottle attaches	(2)
6.	Install proper gasket on reducer	(2)
7.	Locate missing anti-crush rings	(2)
8.	Install 2 anti-crush rings	(2)
9.	Locate missing filter ion switch box	(2)
10.	Install filter on switch box	(2)
11.	Locate missing valve in pressure relief valve	(2)
12.	Install valve in pressure relief valve	(2) 0
13.	Locate leak in soda lime canister	(2)
14.	Replace parts from bad canister, pack and Install new canister	(2)
15.	Locate high dosage caused by missing gasket under minimum valve lever	(2)
16.	Install proper gasket and tighten minimum valve lever	(2)
17.	Changing parts (cylinder, bag, cooler, hoses, mask,) without verification apply 1 demerit per item	<b>B</b> /
	Total Demerits	84
Time	= <u>30.00</u>	
Judg	e: Joe Johnt	
6	Was changing Sentinel and	van out
G	was changing Sentinel and	van oat

Judges Demerit Sheet for Incorrect Units	1 Demerit for Wrong Unit	Defects
Function Test Date (month as Jan – Dec)		No year markal.
First initial, last name of technician	V	
Visual Inspection (incl. belt & lanyard)	V	
O <sub>2</sub> Cylinder Hydrostatic Test	V	
Face Mask Inspection	V	
Low Pressure Warning	V	
Inhalation Valve	V	
Exhalation Valve	V	
Drain Valve	V	
Positive Pressure Leak Test	V	
Pressure Relief Valve Activation	1	
High Pressure Leak Test	AMC !	
Constant Dosage Rate	l	
Minimum Valve Activation Pressure		528.00
Bypass Valve	l	32.00
Cylinder Pressure		
Low Pressure Alarm		
Battery Test		
Date battery to be replaced	1	
Date soda lime to be replaced (6 months)	-	

Changel Oring an cause list > ho bund leak

## **Technician Summary Sheet**

TECHNICIAN: Brian Melis	DATE:
TEAM: KGHM Cobrog - Sudbury Bogin	Aug 24/16.
	DEMERIT CHARGED;
GENERAL PROBLEM	B#2
FUNCTION TESTS	9.
TIME 30 minues	
Clipton conister (2:01 minutes. INCORRECT UNITS USED	
INCORRECT CIVITS CSED	
DEFECTS NOT DOCUMENTED - gastet on reduce not documented missing crush vings not documented soda line counter defect not	3.
reported.	
TOTAL DEMERITS	
	- P Jan
SIGNATURE OF JUDGE	
COMMENTS: Did not Days pos. pressure leak lest or	use carista chanceld
Coordile are Pill of califer )	14
that it in a familial	



## **END OF DOCUMENT**



