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# MRV 9000

Getting Mine Rescuers to  
the Action Faster and Safer

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 **GOLDCORP**

# Where We Live and Operate

## Surface and Underground Operations



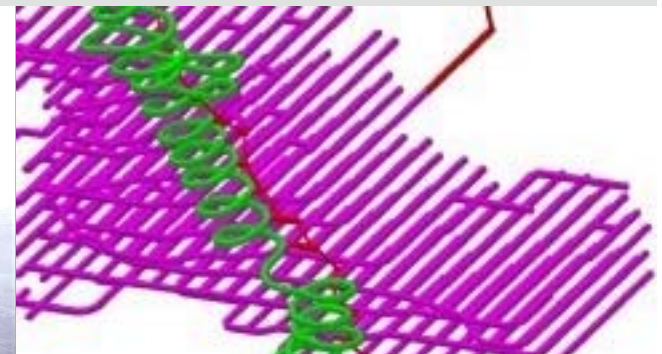
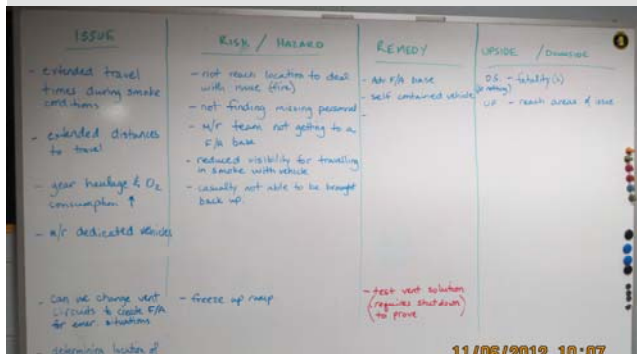
# Project Progression

- Risk Review
- Solution Options
- Partnership Research
- Engineering Design / Process
- Outcome



# Risk Review

- Operational Review for Emergency Response
  - Discovered limitations of current emergency response capabilities
    - Long travel distances (expansive operations)
    - Up cast ventilation through all accesses
    - Limited capabilities of existing breathing apparatus
- Ontario Mine Rescue Technical Advisory Committee
  - Evaluation of :
    - Depth mining risks
    - Heated working conditions
    - Alternate response solutions



# Solution Options

- Longer duration breathing apparatus
- Storing breathing apparatus underground (advanced FAB)
- Mobile solution
  - Modify existing vehicles
  - Develop self contained positive pressure transport



# Partnership Search

- Selection criteria
  - Acceptance of concept and design, available components, future adaptation and follow up support
- 3 Components
  - Breathing air system (Draeger)
  - Chassis / cassette (Paus)
  - Electronics (gas monitoring, thermal imaging, communications) (Zetec)



# Engineering Design / Criteria

- Duration of life support system (air or oxygen)
- Personnel capability
- Internal and external gas monitoring
- Thermal imaging capabilities
- Climate controlled interior
- ROPS /FOPS (rollover protection / fall on protection)
- Maximum dimensions
- Chassis - ruggedness





MRV 9000 Development

# Outcome



MRV 9000 Development

# Feedback

Questions?

