Project Origin/History

- Project started as a response to a roll-over incident underground
- Project seeks to address the following issues found lacking by today's standards in traditional LHD vehicles:
  - Ergonomics/Driver comfort
  - Certified roll-over/falling object protection
  - Operator visibility issues
Ergonomics/Driver comfort

- All design work was completed utilising 3D CAD allowing a virtual model of the finished product.
- This in turn has enabled a virtual 3D representation of a 5th and 95th percentile operator to be moved about the cabin to simulate arm and leg movements for placement of controls.
- Operator cabin space has been increased for greater driver comfort.
Certified roll-over/falling object protection

- Certified ROPS to AS2294
- Certified FOPS to AS2294
- ROPS structure to be built around an Ergonomic cabin space envelope
- Design has been an integration of Underground Operational Requirements, Engineering Standards, Ergonomics, Specific Machine Requirements, Durability & Cost

Operator Visibility Issues

- ROPS structure designed to move 500mm in the vertical direction relative to the machine chassis
- Cabin can be lowered for low roof heights and raised for greater driver visibility
- Operator stays seated with a fastened seat belt at all times
- The practice of operators standing unrestrained while operating these vehicles has been eliminated
- Very difficult to change the traditional 'culture' of the end user of these LHD machines
The Future

- Prototype has been in the field for 12 months without incident, however one iteration of pedal design has been required
- Presently have orders for the following LHD models: 913 retrofit, ED7 & ED10
- Presently investigating the use of cabin mounted screens with fore-aft camera's for low height applications