



## CURRICULUM VITAE – TIM HARVEY

### *2014 - Present, Principal Engineer, Sigra Pty Ltd*

- Ventilation and gas drainage consulting.
- Prefeasibility study and mine design for Belvedere Mine Project.

### *2010 – 2014, Self Employed Mining Engineer*

Work includes:

- Ventilation expert in expert on panel assisting the Pike River Mine Royal Commission.
- Providing assistance to Xstrata and Vale Coal on the control of heating's in their mines.
- Consulting to Anglo and Xstrata on instrumentation and calculations for greenhouse emission measurement and reporting.
- Assisting New Zealand Department of Labour with review of information and by contributing to an expert report on the Pike River mine disaster.
- Mine ventilation design for a new Anglo Metallurgical longwall coal mine.
- Major risk assessments, at BMA Broadmeadows and Vale Carborough Downs mines.

### *1977 – 2009, Coal Mining Industry*

Working for several major mining companies:

- Collinsville, MIM,
- South Blackwater, CSR
- Western Collieries, Wesfarmers.
- Shell Coal, subsequently acquired by Anglo, from their head office to service all of their Australian based coal mines.

Held positions as:

- Deputy,
- Overman,
- Undermanager,
- Open cut examiner and foreman,
- Principal, chief, senior and junior mining engineer,
- Technical services manager, and
- Group ventilation engineer.

Recent experience in coal mining has been mainly associated with mine ventilation, gas management and spontaneous combustion control, including:

- developing and implementing a method to safely mine through, high hydrogen sulphide content coal,
- developing and implementing a method for the use of medium density fire fighting foam to help prevent and to control spontaneous combustion.
- use of ventilation modelling and ventilation surveys to develop accurate ventilation models for company mines.
- assisting mines with the selection and installation of ventilation and gas drainage infrastructure.



Extensive experience in:

- mine planning and scheduling,
- feasibility studies,
- economic modelling,
- budgeting and project management,
- mine drainage,
- shaft sinking (raise boring, blind boring and conventional sinking), and
- mining through difficult conditions.

Contributed to many coal industry ACARP and NEDERC research projects as a monitor and a sponsor.

### ***1973 – 1975, Metalliferous Mining***

Mount Isa Mine, Queensland:

- Trainee mining engineer
- Hand held and jumbo contracts on, development in the copper pillars, developing an underground workshop, an incline and a decline in the lead ore bodies.

Aberfoyle Group at the Aberfoyle, Storys Creek and Cleveland tin mines. Tasmania

- Trucker,
- Timberman on wet-fill preparations, installation of square sets, lagging, chutes, ladderways and track laying in new areas, re-timbering of old areas and development through old 3/8" jig tail filled stopes to recover and reprocess fill material and on shaft timber maintenance.
- Mine surveyor on measuring and calculation of pays, rise surveys, and reserves.

Cleveland Tin, Tasmania:

- Tin, copper, fluorite and gold mine, mining a sulphide ore body mine from the top down by sub-level overhead benching method leaving large open stopes.
- Mill operator and underground haulage operator and as a trade's assistant.

### ***Pre 1974, Civil Engineer, Melbourne Metropolitan Board of Works, Victoria***

- Civil Engineer at Melbourne Metropolitan Board of Works in major sewage design.
- Designing 80km 2.5m diameter outfall sewer, including grade and route selection, earthwork calculations, evaluation of various flow conditions and investigation of air entrainment problems.
- Clerk of Works on an earth filled dam project.
- Machinist making valves and general lathe work including associated tooling.

### **Qualifications and Professional Memberships**

- Royal Melbourne Institute of Technology - Associateship Diploma in Mining Engineering (1973).
- Diploma in Civil Engineering from Swinburne College of Technology – Diploma in Civil Engineering (1970).
- Queensland 1st Class Mine Manager's Certificates for Metalliferous and Coal Mines.
- Member of the Australasian Institute of Mining and Metallurgy,
- Member of the Institution of Engineers Australia. CPEng Civil