

David Tilley's Story

1971: Qualified as a Geologist at RMIT

1978: Completed Engineering Geology Diploma at Monash University

1978: Joined VicRoads in their Materials Technology Department working in Geology Section under Alan Muir.

My duties consisted of:

- Quarry Investigations
- Alignment Investigations
- Material Searches
- Slope Stability
- Vibration Monitoring
- Site construction visits to discuss onsite conditions concerning any of the above.

1988 – 1990: Secondment to Lesotho.

Basically, manage the earthworks laboratory which included concrete testing. Well-equipped lab set up by USAID. Also undertook quarry investigations at sites near projects and then carried out drilling investigations. Provided advice on materials testing and undertook geotechnical investigations generally to upgrade existing roads. Never really thought about a secondment but was talking to Peter Lowe about leaving and going to Africa for a couple of years. He suggested taking a secondment which was then sorted out with John Bethune.



David's send-off to Lesotho in 1988 – LtoR: John Jobson, Doug Cromie, Graeme Newman, David, and Barry Fielding

Interesting thing is that they were building one of the biggest hydro-electric schemes in Southern Africa at the time and Barry Fielding had some input as they set the project up to use massive amounts of concrete but discovered the VicRoads problem of "green basalt". The only useable

rock was a diorite that occurred in sills and dykes. Picking the diorite sills and dykes in the basalt was a knack which took me quite a while to come to grips with. Luckily in the laboratory I had 2 geologists working as laboratory technicians they had trained in East Germany in exile as they backed the wrong side to the current military group in power and had only recently been allowed to return home.

These two geologists went into the highlands and were able to locate scores of sites suitable to establish quarries which would have saved the project a lot of money,

Lesotho was a defacto South African embassy for a lot of countries and the diplomatic presence far exceeded the importance of the country which was good for the lab because I met a lot of the ambassadors socially and was able to hit them for lab equipment.

My wife Valerie had never left Australia, so it was an incredible eye opener for her. She got a local job in the British embassy and was the successor to the consular assistant who was in the movie "Cry Freedom" where the journalist escaped South Africa. We were in Lesotho when Nelson Mandela was released which widely celebrated.

December 1990 to June 1995:

Joined Pavement Design section duties included:

- Pavement Design using Circlay computer program for deep strength and full depth asphalt designs plus Austroads for granular pavement design.
- Pavement rehabilitation site inspections plus using Defana to analyse PaSE truck data.
- Some concrete pavement design.
- Site construction visits to discuss onsite issues which often included using my experience in the geology section as problems could often include both materials and pavement design. One issue involved a local council in a dispute with the developer regarding a road showing signs of distress in less than a year. Provided a forensic report including analysis of PaSE testing data that showed the pavement under designed. The PaSE testing results were often used as a case study showing the value of this sort of testing.
- Expert witness at VCAT in dispute between developer and local council which would have set a precedent. Representing the local council with the final decision in favour of the Council.

June 1995 to December 1996: Fiji Road Upgrading Project

Part of the VicRoads overseas projects group run by David Jellie. Similar job to Lesotho where I ran the public works department laboratory in Samabula. Dennis Maxwell (Road Design) and John Gavin (Bridge) were there at the same time. Very interesting job as I had input into the quarry and an asphalt batching plant. We also did deflection testing courtesy of Benkelman Beams, so we were able to utilise the experience I had received in pavement design. Also carried out alignment investigations (Viseisei Bypass) Nadi to Lautoka was the major project at the time. I did some travelling to the other islands, mainly Vanua Levu to look at other road projects. I succeeded Rick Bush who had put a lot of effort into writing up a Standard Specifications Manual based on VicRoads.

December 1996 to March 2004:

Returned to VicRoads and rejoined the Pavement Design Section.

2005: Post Departure from GeoPave:

I joined Douglas Partners in 2005 at the start of Eastlink and thoroughly enjoyed my work with them. Having lunch with Peter McDonald shortly before he died, I said that VicRoads provided me with many years of what I would consider to be a Quaternary education. I believe the winding up of VicRoads to be a travesty as working in the private sector I have seen first-hand the effects and the increase in cost to the Victorian taxpayer.