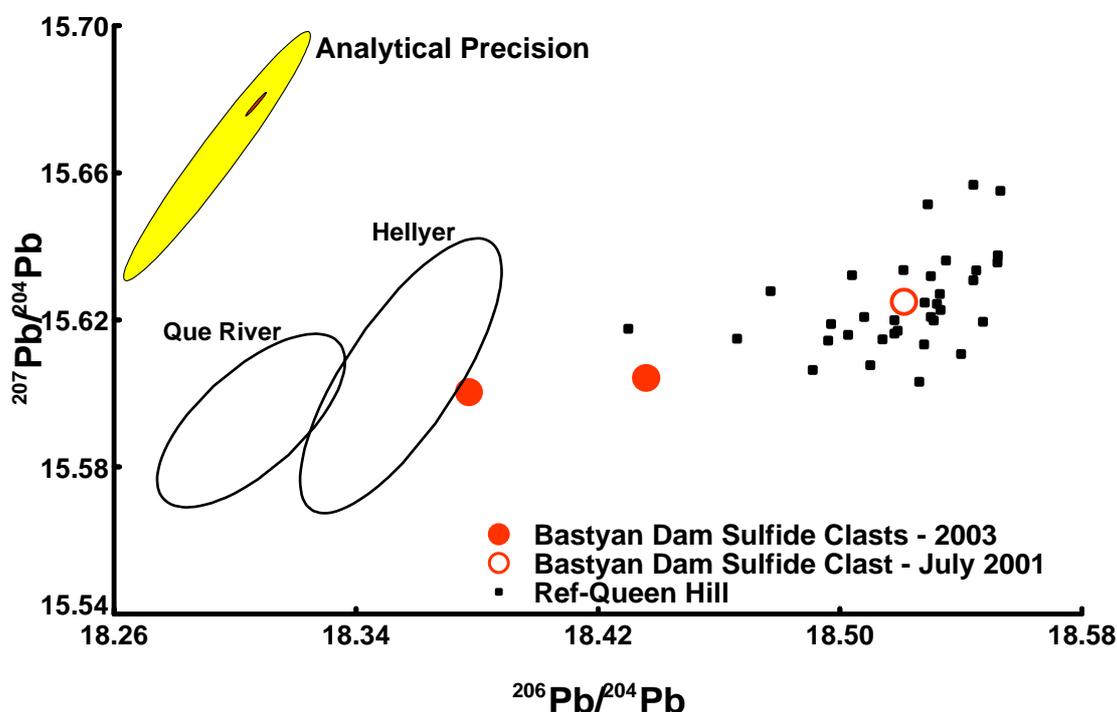


## Pb ISOTOPE ANALYSIS OF SULFIDE CLASTS FROM NEAR BASTYAN DAM



Lab No	Sa No	<sup>206</sup> Pb/ <sup>204</sup> Pb	<sup>207</sup> Pb/ <sup>204</sup> Pb	<sup>208</sup> Pb/ <sup>204</sup> Pb	Pb (conc)	Run Date	Q Value
1V864	167696	18.377	15.6	38.222	1.00E+03	29/03/2003	5
2V863	167694	18.436	15.604	38.252	8.00E+02	29/03/2003	4

### Results

The results of lead isotope analyses of two sulfide clasts from within Mt Read Volcanics near the Bastyan Dam are shown above. A previous analysis of galena (Bastyan Dam Sulfide Clast – 2001) had indicated a Devonian age.

The two new samples contain 1000 and 800 ppm Pb and have very different isotopic ratios. The higher Pb sample (167696) has an isotopic composition that falls just outside the Hellyer ellipse. About 1ppm U in the sample could account for this small difference. In contrast, sample 167694 with 800 ppm Pb has a much higher <sup>206</sup>Pb/<sup>204</sup>Pb ratio, broadly within the highly variable Devonian field. This sample would have required about 10 ppm U to have shifted from a Cambrian signature over the past 500 Ma.

The three samples define a heterogeneous population when compared with the very small variability seen and expected in Cambrian systems such as Que River and Hellyer. Whilst it is quite possible sample 167696 has a Cambrian signature, the other two samples have much greater affinities with Devonian hydrothermal activity. The results do not preclude the presence of a Cambrian signature, however, with albeit small sampling statistics, a Devonian overprint dominates.

Graham Carr and Geoff Denton  
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