

acid volcanics, e.g. Mt. Isa, McArthur River and Rammelsberg.

In the Comstaff tenements the Mount Read Volcanics, south and east of the Burns Peak Syncline, are predominantly massive volcanic rocks in which no sedimentary basins have been identified. North and west of these rocks, the interbedded shales, siltstones and acid pyroclastics, which have been equated with the Dundas Group, indicate a depositional environment favourable for the formation of large stratiform massive sulphide deposits.

The highest priority area is within the Burns Peak and Que Synclines, between Burns Peak and the Tertiary Basalt. The line of exhalative vents which forms the core of the Pinnacles Anticline is an obvious source for cations. Massive sulphides, grading >20% Zn, have been exposed in costeans on grid EAA, and diamond drilling intersected the following grades of mineralisation at 0.5% Zn cut off:

Section	B/H	From	To	% Zn	Drilled Width
2400S	CP15	40m	56m	1.71%	16m
2000S	CP13	29m	61m	1.08%	32m
1800S	CP12	107m	128m	1.32%	21m
1600S	CP14	127m	158m	1.01%	31m

The intersections were made at the base of an overturned black shale horizon and the mineralisation occurs in net vein fractures. This mineralisation is cut in depth by the Owen Shear and any extensions down dip will be difficult to locate.

The sedimentary basins north and north-east of the Pinnacles are poorly explored, but channel sampling of costeans has shown values >1% Zn. At the northern end of the Burns Peak Syncline, diamond drilling at Sock Creek intersected a weighted grade of 5.9% Zn over a width of 5m and a strike length of 240m. This latter mineralisation was interpreted as being due to remobilisation of sphalerite by hydraulic fracturing caused by movement on the Sock Creek Fault. This explanation may not be entirely correct since the mineralisation has features consistent with stratiform deposits.

In the Hatfield area, the contact between the