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No: 1

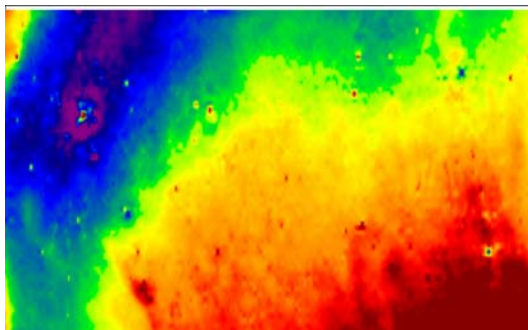
## CASE HISTORY

**Subject: TargetMap™ – Heavy Mineral Sands**

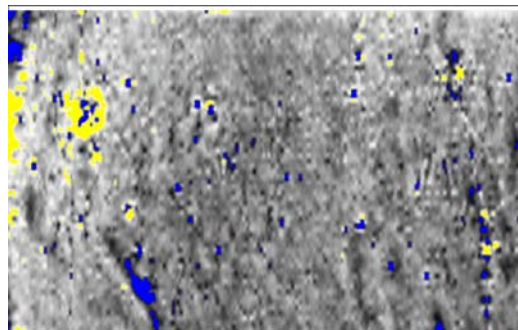
**OUYEN – KULWIN area, Murray Basin, Victoria, Australia.**

Aeromagnetic survey with east-west survey lines spaced 400 metres apart over a series of weakly magnetic strandlines containing heavy mineral sands and striking 330 degrees. Area is 40kms x 25kms, north to top of page. See Vector Research Technical Note No. 2 for details of TargetMap™.

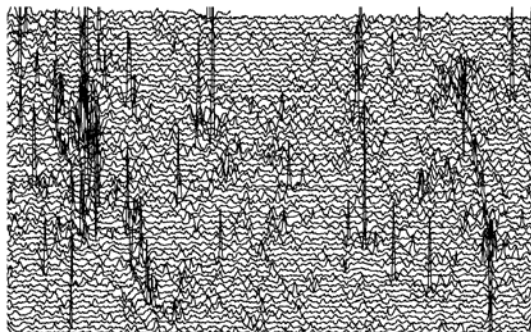
*Data courtesy of Natural Resources and Environment, Victoria, Australia.*



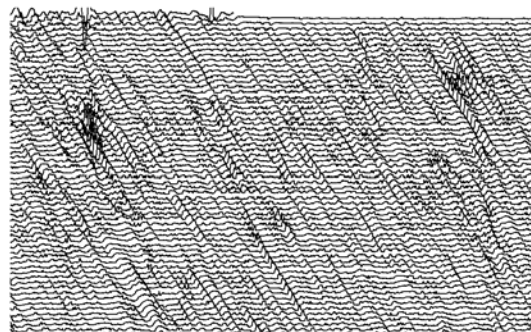
Total magnetic intensity (TMI)



First vertical derivative of TMI.



High-pass filtered TMI



TargetMap™ OMNI3 response

The first vertical derivative and the high-pass filtered TMI reveal only the most magnetic strandlines, amplitudes are about 1nT with stronger responses from noise. North-south railway lines pass through the western and eastern parts of the area. The town of Ouyen is the source of intense noise in the north-west. The OMNI3 response of high-pass filtered TMI “sees through” the noise and increases resolution of all the iron oxide-rich strandlines, amplitudes are typically less than 1nT.

A detailed account of TargetMap™ (previously known as the Overburden Filter™) applied to heavy mineral sands exploration can be found in:

Mudge, S, and Teakle, M, 2003. Geophysical exploration for heavy-mineral sands near Mindarie, South Australia. In Dentith M.C. (Ed.), Geophysical Signatures of South Australian Mineral Deposits. Centre for Global Metallogeny, The University of Western Australia, Publication 31, and Australian Society of Exploration Geophysicists, Special Publication 12, and Primary Industries & Resources South Australia, p249 – 255.