

COAL RESOURCE CALCULATION WITH PARTICULAR REFERENCE TO THE WATERBERG COALFIELD

By Catherine Telfer

Venmyn has recently been involved in preparing resource statements for a number of projects in the Waterberg Coalfield. As we are all aware, the Waterberg coals are characterised by thick zones of interlaminated coal and shale, described as “thick interbedded seam deposit type coal resources” in the South African National Standard (SANS10320:2004). A number of critical issues relate to these resultant resource volumes, including the following:-

- sampling of these zones typically does not separate out the coal from the interlaminated shale portions;
- these zones are modelled and the tonnages calculated;
- resource statements have quoted the tonnages pertaining to the whole zone, rather than only the coal portion;
- washability results on these coals are often as poor as 20% due to the large percentage of contained rock but SANS states that “no saleable products shall be stated for in situ coal resources”; and
- these tonnages are often used in the derivation of project values using non-DCF methods.

It is therefore imperative that only the coal resource tonnages be quoted in the resource statements for the Waterberg Coalfield, as quoting zone tonnages may be misleading.

Discussions with a number of industry experts have led Venmyn to remove the stone fraction, using the washability results, prior to quoting the resource tonnages. This is in effect de-stoning the zones in order to calculate the coal only tonnages for inclusion into the resource statement. Venmyn has typically used a relative density of 1.9t/m^3 for this purpose.

Venmyn invites any comments on the method applied and the use of an RD of 1.9 or any other suggestions in this regard.