

12102R.6.1

Sand Unit	My Estimate	Dr. Gringarten's Estimate
M56D	500 md	116 md
Upper M56E	150 md	117 md
Lower M56E	500 md	285 md
Thickness Based Average	438 md	238 md

2.4. Additional Critique of Dr. Gringarten's Methodology

**Table 2 – Comparison of My Estimates to Dr. Gringarten's**

Sand Unit	My Estimate	Dr. Gringarten's Estimate
M56D	500 md	116 md
Upper M56E	150 md	117 md
Lower M56E	500 md	285 md
Thickness Based Average	438 md	238 md

...inappropriate to apply the sand thickness to the data. The problem is that smoothing will by design reduce noise in the data and allow derivative derivatives (trends) to be computed directly from the modified data with the true information of the data easily lost in the process. Since log-log plots can only display positive derivatives, the results will be biased towards high values for poor resolution and noisy data.

<sup>8</sup> Expert report of A. Gringarten, Appendix E, page 27.  
<sup>9</sup> Expert report of A. Gringarten, Appendix E, Fig. 10, page 9 and 10.  
<sup>10</sup> Expert report of A. Gringarten, Appendix E, Fig. 10, page 11.  
<sup>11</sup> Expert report of A. Gringarten, Appendix E, Fig. 10, page 27.