

**Certificate of Analysis
Part No. B2811
Proximate Coal Standard**

Certificate Number 311014
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Dried Basis Value

Mean Weight % Sulphur	=	1.80
Expanded Uncertainty	=	0.07
Mean Weight % Ash	=	41.64
Expanded Uncertainty	=	0.70
Mean Weight % Vol. Matter	=	26.39
Expanded Uncertainty	=	1.0
BTU/lb	=	8377
Expanded Uncertainty	=	81
Fixed Carbon (calculated)	=	(31.97)

Methods Employed:

Sulphur	ASTM D4239
Ash	ASTM D3174, D7582
Vol. Matter	ASTM D3175, D7582
BTU	ASTM D5865

Notes:

The material used in production of this standard was evaluated and identified in accordance with ARI 041. The precision values represent the expanded uncertainty ($k=2$, 95% confidence limit) obtained through analytical testing. Normal testing procedures should be employed when using this standard, this includes using the reproducibility and repeatability factors of the method for establishing method based analytical uncertainty. When necessary, professional judgment is applied toward consideration of data and statistical information.

The samples for round robin testing were selected in accordance with ARI 031. The above values relate only to the material used to produce this standard. The analytical samples were dried or calculated for moisture as defined by the test method. This bottle contains 50g fine mesh (-250μ) coal powder. Values are valid for 15 years from the date of certification. This certificate cannot be reproduced except in full. Keep closed and store under normal laboratory conditions.

Remedies for any claimed defect in this product will be limited to product replacement or refund of the purchase price. In no event shall Elemental Microanalysis Ltd be liable for incidental or consequential damages. For good laboratory practice it is recommended that all standards be verified prior to use.

CERTIFIED December 2, 2014