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**Certificate of Analysis**  
**Part No. B2343**  
**Sulphur in Green Petroleum**  
**Coke**

Certificate Number: 131022  
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Dried Basis Value  
Weight Percent Sulphur = 0.55  
Expanded Uncertainty = 0.04  
(k=2, @95% confidence limit, n=46)

Method:  
ASTM D 4239-17 and ARI-LAB-616

This RM is traced to NIST SRM 2775, 2776 and NCS FC93005, FC28120, FC28014  
Alpha – AR2772-772920, AR2713-131217, AR720-742901, AR745-745418

The intended use of this reference material is for the calibration and quality validation of sulphur by oxygen combustion using resistance furnace and infra-red detection analysis as specified by ASTM 4239 or other valid test methods. The analytical values were derived by a number of data points and reported in mass fraction. Metrological traceability is to the SI derived unit of mass fraction expressed as percent. The sample size used, and minimum sample size is approximately 300-500mg. The precision value represents the expanded degree of uncertainty at a 95% confidence level (k=2), utilizing ANOVA, ISO Guide 35, and the Guide to Uncertainty Measurement. Formal testing procedures should be followed when using this standard; this includes using the reproducibility and repeatability factors of the method for establishing overall method analytical uncertainty. When necessary, professional judgment is applied toward consideration of data and statistical information.

The material used in production of this reference standard was identified in accordance with ARI-LAB-603. The samples for round robin testing were selected in accordance with ARI-LAB-625. The above values relate only to the material used to produce this standard. The analytical samples were dried per the NMI used or corrected for moisture as per the test method.

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. The above values relate only to the material used to produce this standard. This certificate cannot be reproduced except in full. This bottle contains 50g, minus 60 mesh (250 micron) petroleum coke powder. Values are valid for 15 years from the date of certification. Keep sealed tightly and store under normal laboratory conditions.

This Reference Material is traceable to the above-mentioned standards. For good laboratory practice, it is recommended that all standards be verified as fit for purpose prior to use.

Certified October 12, 2022

Elemental Microanalysis Ltd