

National Bureau of Standards

Certificate of Analysis

Standard Reference Material 1622a

Sulfur in Residual Fuel Oil

Sulfur Content. 1.96 ± 0.04 weight percent

This Standard Reference Material is intended as an analytical standard in the determination of sulfur in residual fuel oil. It is a commercially available fuel oil having the following inspection properties which are supplied for identification only: flash point, 184 °F; pour point, 10 °F; carbon residue (Ramsbottom), 6.0 weight percent; and viscosity at 100 °F (SSU) 4191.7 sec.

Sulfur was determined by ion-chromatography after combustion in a Parr Oxygen Bomb using 1-gm samples, and by x-ray fluorescence using SRM 1622 as a reference standard. Measurements by the two methods agree within 0.04%. The uncertainty shown represents an estimate of the random error based on 18 determinations and allowances for known sources of possible error.

The oil sample was supplied by the Exxon Research and Engineering Company of Linden, New Jersey. Sulfur analyses were performed by W. F. Koch and P. A. Pella of the Center for Analytical Chemistry.

The overall direction and coordination of the technical measurements leading to certification were performed under the chairmanship of I. L. Barnes and H. L. Rook.

The technical and support aspects involved in the preparation, certification, and issuance of this Standard Reference Material were coordinated through the Office of Standard Reference Materials by W. P. Reed.

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George A. Uriano, Chief
Office of Standard Reference Materials