

Alpha Resources, Inc.

Certificate Of Analysis

AR 150

Revised 11-17-04

RESIDUAL OIL STANDARD

LOT # 281191 LID ID 150

Weight Percent Carbon	=	87.16
Standard Deviation *	=	1.09
Weight Percent Hydrogen	=	11.92
Standard Deviation	=	0.16
Weight Percent Nitrogen	=	0.037
Standard Deviation	=	0.002
Weight Percent Sulfur	=	0.181
Standard Deviation	=	0.008
Gross BTU/Pound	=	19,350
Standard Deviation	=	64

Methods:

ASTM D 5291	ASTM D 4294
ASTM D 4629	ASTM D 240
ASTM D 5762-95	

Notes:

This Certified Reference Material was traced to NIST SRM 1624c

* Standard Deviations reported are two sigma.

Before use, the contents of the bottle should be mixed through vigorous shaking. The contents should not be exposed to air for a lengthy period of time.

The certified mean values were statistically derived from the values reported to Alpha Resources through Round Robin.

Normal ASTM procedures should be employed when using this standard. This includes using the *reproducibility* and *repeatability* factors. Use the reproducibility factor when establishing the first set of data, and then establish an internal repeatability factor as your guideline.

The overall direction and coordination of the analytical measurements leading to certification were performed by D.M. Reasons at Alpha Resources.

Remedies for any claimed defect in this product will be limited to product replacement or refund of the purchase price. In no event shall Alpha Resources be liable for incidental or consequential damages.

EXPIRATION DATE

THIS CRM IS VALID FOR TWO YEARS FROM THE DATE OF PURCHASE WHICH APPEARS ON THE BOTTLE

