

CERTIFICATE OF ACCREDITATION

ANSI-ASO National Accreditation Board

500 Montgomery Street, Suite 625, Alexandria, VA 22314, 877-344-3044

This is to certify that

Alpha Resources, LLC 3090 Johnson Road Stevensville, MI 49127

has been assessed by ANAB and meets the requirements of international standard

ISO 17034:2016

while demonstrating technical competence in the field of

Reference Material Producer

Refer to the accompanying Scope of Accreditation for information regarding the types of materials to which this accreditation applies.

AR-1920 Certificate Number

ANAB Approval

Certificate Valid 12/19/2017-01/04/2020 Version No. 005 Issued: 12/19/2017





SCOPE OF ACCREDITATION TO ISO 17034:2016

Alpha Resources, LLC 3090 Johnson Road, Stevensville, MI 49127 Keith Bonner Phone: 269-465-5559 keith@alpharesources.com www.alpharesources.com

REFERENCE MATERIAL PRODUCER

Valid to: January 4, 2020 Certificate Number: AR-1920

Chemical Composition

Sub-Category of Reference Material	ILAC RM Category	Class or Type of Reference Materials Produced (Include Range Where Applicable)	Methods or Techniques Used in the RMP Laboratory (if Appropriate)
A1 Metals	A1.1 Ferrous Based Materials (solid, chips, or powder) Iron alloys and Steel alloys	Carbon Sulfur Oxygen Nitrogen	ASTM E1019 ARI-033 ASTM E1019 ARI-033 ASTM E1019 ARI-034
	A1.2 Nonferrous Based Materials (solid) Refractory Metals	Carbon Oxygen Nitrogen Hydrogen	ASTM E1019 ARI-034 ASTM E1941 ARI-033 ASTM E1409 ARI-034 ASTM E1409 ARI-034 ASTM E1447 ARI-036
A2 Inorganic Reference Materials	A2.5 Solids fuels	Sulfur Coal Coke	ASTM D4239 ARI-035
A3 Organic Reference Materials	A3.5 Petroleum Products (fuels and lubricants)	Sulfur • Lube oil • Petroleum fuels	ASTM D4294 ARI-078





Physical Properties

Sub-Category of Reference Material	ILAC RM Category	Class or Type of Reference Materials Produced (Include Range Where Applicable)	Methods or Techniques Used in the RMP Laboratory (if Appropriate)
C5 Reference Materials for Thermodynamic Properties	C5.1 Calorimetry	BTU's • Benzoic Acid	ASTM D240 ARI-079
	C5.10 Thermal Analysis Standards	LOI (Loss on Ignition)/Ash Blended solid	ASTM C25 ARI-192

Notes:

- 1. Please contact the RMP organization for more information on CRM uncertainty values, Ucrm values, and other specific lot values. Some of this information may also be available on the RMP's website.
- 2. This scope is formatted as part of a single document including Certificate of Accreditation No. AR-1920.



