



CERTIFICATE OF ACCREDITATION

ANSI-ASQ 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: 11/27/2018-01/04/2020
Version No. 006 Issued: 11/27/2018



This reference material producer is accredited in accordance with the recognized International Standard ISO 17034:2016.
This accreditation demonstrates technical competence for a defined scope and the operation of an RMP quality management system.



SCOPE OF ACCREDITATION TO ISO 17034:2016

Alpha Resources, LLC

3090 Johnson Road, Stevensville, MI 49127

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REFERENCE MATERIAL PRODUCER

Valid to: **January 4, 2020**

Certificate Number: **AR-1920**

Chemical

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	Solids, Chips, Powders Single and Multi-Element Analysis (Aluminum-Zirconium) Steels - Carbon steels - Low alloy steels - High alloy steels - Cast steels - Specialty steels Irons - White cast irons - Ductile irons Gases in metals	ASTM E1019 ARI-033 ASTM E1019 ARI-034 ASTM E1019/1447 Modified ARI-034 Measurements are carried out by a competent laboratory using a variety of validated analytical methods as applicable to the analytes of concern and corresponding matrix, and of demonstrable accuracy.
	A1.2 Nonferrous	Solids, Chips, Powders Single and Multi-Element Analysis (Aluminum-Zirconium)	ASTM E1941 ARI-033 ASTM E1409 ARI-034

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		- Aluminum alloys - Copper alloys - Lead base alloys - Tin base alloys - Brasses - Bearing alloys - Titanium base alloys - Zirconium base alloys - Carbide alloys Gases in metals	ASTM E1447 ARI-036 Measurements are carried out by a competent laboratory using a variety of validated analytical methods as applicable to the analytes of concern and corresponding matrix, and of demonstrable accuracy.
A2 Inorganic Reference Materials	A2.1 Ores and Minerals	Powders Mineral content and Multi-Element Analysis (Aluminum-Zirconium)	Measurements are carried out by a competent laboratory using a variety of validated analytical methods as applicable to the analytes of concern and corresponding matrix, and of demonstrable accuracy.
	A2.5 Solid fuels	Powders - Coal - Coke Ash, BTU, MAFBTU, Vol. Matter, Fixed Carbon, Forms of Sulfur, Ash deformation, Mineral content, Multi-Elemental Analysis (Aluminum-Zirconium)	ASTM D4239 ARI-035 Measurements are carried out by a competent laboratory using a variety of validated analytical methods as applicable to the analytes of concern and corresponding matrix, and of demonstrable accuracy.



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A3 Organic Reference Materials	A3.1 Pure Organic Compounds	Neat Compounds for Elemental Analysis • Carbon • Hydrogen • Nitrogen • Sulfur • Oxygen • Chlorine • Bromine • Fluorine	Measurements are carried out by a competent laboratory using a variety of validated analytical methods as applicable to the analytes of concern and corresponding matrix, and of demonstrable accuracy.
	A 3.3 Foodstuffs	Plant/Food Material Proximate Analysis Nutritional Properties Trace Elements • Carbon • Sulfur • Nitrogen • Hydrogen • Oxygen • Crude Fat • Fiber • Ash • ADF Fiber • Crude Protein • Acid Detergent Free • Salt • Starch • Sugars • Elemental Analysis (Al-Zr)	Measurements are carried out by a competent laboratory using a variety of validated analytical methods as applicable to the analytes of concern and corresponding matrix, and of demonstrable accuracy.

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	A3.5 Petroleum Products	Fuels and Lubricants (liquids) • Sulfur • Ash • API Gravity • Cetane Index • Cloud Point • Pour Point • Freezing Point • Conductivity • Viscosity • Flash Point • Distillation • Carbon Residue • BTU • Elemental Analysis (Al-Zr)	Measurements are carried out by a competent laboratory using a variety of validated analytical methods as applicable to the analytes of concern and corresponding matrix, and of demonstrable accuracy.
A4 Environmental Reference Materials	A4.1 Soils and Sludges	Powders • Major Elements • Trace Elements	Measurements are carried out by a competent laboratory using a variety of validated analytical methods as applicable to the analytes of concern and corresponding matrix, and of demonstrable accuracy.
	A4.2 Ashes	Powders • Major Elements • Trace Elements	

Chemical

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C5 Reference Materials for Thermodynamic Properties	C5.1 Calorimetry	BTU's - Benzoic Acid Tablet - Benzoic Acid Powder	ASTM D240 ARI-079
	C5.10 Thermal Analysis Standards	LOI (Loss on Ignition)/Ash - Blended solid - Powder	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.



Vice President

