



Accredited Reference Material Producer

A2LA has accredited

VHG LABS

Manchester, NH

This accreditation covers the specific materials listed on the agreed upon Scope of Accreditation.

This producer meets the requirements of ISO Guide 34:2009 *General Requirements for the Competence of Reference Material Producers*. This accreditation demonstrates technical competence for a defined scope and the operation of a quality management system.

Presented this 29th day of September 2015.



President & CEO

For the Accreditation Council

Certificate Number 2848.02

Valid to May 31, 2017

For reference materials to which this accreditation applies, please refer to the reference material producer's Scope of Accreditation.



SCOPE OF ACCREDITATION TO ISO GUIDE 34:2009

VHG LABS
276 Abby Road
Manchester, NH 03103
Ms. Susan J. Evans Norris Phone: 603 622 7660
E-mail: sue@vhglabs.com

REFERENCE MATERIAL PRODUCER

Valid to: May 31, 2017

Certificate Number: 2848.02

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this Reference Material Producer for the production of certified reference materials and non-certified reference materials of the following category:

Category	Concentration Ranges	Uncertainty	Method	Analytical Technique
Certified Reference Materials				
High Purity Metals – Spectrochemical Solutions				
Single Element Standards	1 to 50,000 µg/mL	Relative < 0.5%	NIST High Performance ICP-OES	ICP-OES, ICP-MS
Multi Element Standards	1 to 50,000 µg/mL	+/-0.5% Relative	ICP-OES Aqueous QD, ICP-MS-Aqueous QD	ICP-OES, ICP-MS
Ion Chromatography Standards (Anions and Cations)				
Single-Ion Standards	1 to 10,000 µg/mL	+/- 0.5% Relative	IC Aqueous QD	IC
Multi-Ion Standards	1 to 10,000 µg/mL	+/- 0.5% Relative	IC Aqueous QD	IC
Petroleum Products – Fuel and Lubricants				
Acid Number	0.1 to 3.0 mg KOH/g	2 - 30% Relative	ASTM D664 ASTM D974	Titrimetry
Base Number	6 to 70 mg KOH/g	+/- 4-11% Relative	ASTM D2896 ASTM D4739	Titrimetry
Chlorine (Cl)	1 to 50,000 µg/mL	+/-1% Relative	ICP-OES-Aqueous QD, XRF QD	ICP-OES, XRF
FT-IR Standard	1 to 100 ABS/cm	+/-10-25% Relative	ASTM E2412	FT-IR

Category	Concentration Ranges	Uncertainty	Method	Analytical Technique
Certified Reference Materials				
Petroleum Products – Fuel and Lubricants (cont)				
Lead (Pb)	0.001 to 5.0 g/gal	+/-1% Relative	ICP-OES-Aqueous QD, XRF QD	ICP-OES, XRF
Moisture (H ₂ O)	0.1 to 1.0 %	5% Relative	ASTM D6304	Karl Fischer, Titrimetry
C6.2 Viscosity	0 to 1000 cSt	0.32% Relative	ASTM D445	Viscometry
Sulfur (S)	1 to 50,000 µg/g	+/-1% Relative	ASTM D4294	XRF
Single Element Standards	1 to 300,000 µg/g	1% Relative	ASTM D5185	ICP-OES, XRF
Multi Element Standards	1 to 50,000 µg/g	1% Relative	ASTM D5185	ICP-OES, XRF
Wear Metals in Oils				
Single Element Standards	1 to 300,000 µg/g	1% Relative	ASTM D5185	ICP-OES
Multi Element Standards in Petroleum Products	1 to 50,000 µg/g	+/-1% Relative	ASTM D5185	ICP-OES
Non-Certified Reference Materials, Quality Control Reference Materials				
Petroleum Products - Fuels and Lubricants				
Particle Count Reference Materials	0 to 100,000 particles		ASTM D7596	Particle Counting



American Association for Laboratory Accreditation

Accredited Laboratory

A2LA has accredited

ANALYTICAL SERVICES DIVISION, VHG LABS

Manchester, NH

for technical competence in the field of

Chemical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General Requirements for the Competence of Testing and Calibration Laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009*).

Presented this 28th day of June 2013.





President & CEO

For the Accreditation Council
Certificate Number 2848.01
Valid to September 30, 2015
Revised: August 25, 2015

For the tests or types of tests to which this accreditation applies, please refer to the laboratory's Chemical Scope of Accreditation.



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

ANALYTICAL SERVICES DIVISION, VHGLABS
276 Abby Road
Manchester, NH 03103
Ms. Susan J. Evans Norris Phone: 603 622 7660
E-mail: sue@vhglabs.com

CHEMICAL

Valid to: September 30, 2015

Certificate Number: 2848.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on aqueous and organic reference materials, cosmetics, paints and other surface coatings, plastics and polymers, consumer and children's products, wood, petroleum (oil, lubricants), chemicals, and metals:

Tests

Test Methods

Spectroscopy

ICP-OES Elemental Analysis

EN 71-3; Aqueous Quantitative & Semi-Quantitative Determinations; CPSC-CH-E1001-08; CPSC-CH-E1002-08; 16 CFR Part 1303, CPSC-CH-E1003-09.1; ASTM D5185 (Modified); ASTM F963-11, Sections 4.3.5.1(2) and 4.3.5.2; NIST High Performance ICP-OES

ICP-MS Elemental Analysis

EN 71-3; Aqueous Quantitative & Semi-Quantitative Determinations; CPSC-CH-E1001-08; CPSC-CH-E1002-08, 16 CFR Part 1303, CPSC-CH-E1003-09.1; ASTM F963-11, Sections 4.3.5.1(2) and 4.3.5.2

Tests

Test Methods

Spectroscopy (cont)

Flame AA

EN 71-3; CPSC-CH-E1001-08;
CPSC-CH-E1002-08; 16 CFR
Part 1303, CPSC-CH-E1003-
09.1; ASTM F963-11, Sections
4.3.5.1(2) and 4.3.5.2

XRF Elemental Analysis

ASTM D4294 (Modified);
ASTM D7220; ED-XRF
Analysis of PEEK and ETFE;
ED-XRF Quantitative
Determinations

FTIR Analysis

ASTM E2412

Chromatography

GC-MS

CPSC-CH-C1001-09.3

IC

IC Quantitative Determinations

Physical Property

Viscosity

ASTM D445

Wet Chemistry

Titration

ASTM D974, ASTM D6304

Aqueous Determinations by Colorimetric Titration

ASTM D664, ASTM 2896,
ASTM D4739





American Association for Laboratory Accreditation

Accredited Proficiency Testing Provider

A2LA has accredited

VHG LABS

Manchester, NH

for technical competence as a

Proficiency Testing Provider

This accreditation covers the specific proficiency testing samples listed on the agreed upon Scope of Accreditation. This provider is accredited in accordance with the recognized International Standard ISO/IEC 17043: 2010 *Conformity assessment-General requirements for proficiency testing*.

This provider meets the management system requirements of ISO/IEC 17043:2010, which includes the principles of ISO 9001:2008.

Presented this 28th day of June 2013.

President & CEO
For the Accreditation Council
Certificate Number 2848.03
Valid to May 31, 2017



For the proficiency testing schemes to which this accreditation applies, please refer to the provider's Scope of Accreditation.



SCOPE OF ACCREDITATION TO ISO/IEC 17043:2010

VHG LABS
276 Abby Road
Manchester, NH 03103
Ms. Susan J. Evans Norris Phone: 603 622 7660
E-mail: sue@vhglabs.com

PROFICIENCY TESTING PROVIDER

Valid to: May 31, 2017

Certificate Number: 2848.03

In recognition of the successful completion of the A2LA evaluation process, this Proficiency Testing Provider has been found to meet the requirements of ISO/IEC 17043:2010, "Conformity assessment – General Requirements for Proficiency Testing". Accreditation is granted to this organization to provide proficiency testing samples in the following analyte/matrix combinations:

Program Name	Frequency	Sample/Artifact Types
VHG Performance Testing Program	Continuous, On Demand	Elemental Analysis by ICP, RDE or XRF for Liquid Petroleum Products
	Continuous, On Demand	Kinematic Viscosity for Liquid Petroleum Products
	Continuous, On Demand	Particle Count for Liquid Petroleum Products
	Continuous, On Demand	S in Diesel, Biodiesel, Kerosene and Isooctane
	Continuous, On Demand	S in Crude, Residual and Mineral Oils

CERTIFICATE

TUV USA Inc.

hereby certifies that

VHG Labs Incorporated
276 Abby Road
Manchester, NH 03103 USA

has established and applies a quality system for

**Production, manufacturing, and distribution of
spectrochemical solution standards and supplies.**

Proof has been furnished that the requirements according to

ISO 9001:2008

are fulfilled.

Further clarifications regarding the scope of this certificate and the applicability of
ISO 9001:2008 requirements may be obtained by consulting the organization.

Certificate Registration No.

12-1280

Effective: May 20, 2013

Expires: May 19, 2016



Quality Systems Division
Salem, New Hampshire

Date of issue: May 20, 2013