

ACCURACY
SETS THE STANDARDS



TRUE NORTH



ATLANTIS

Gas-in-oil and
moisture-in-oil
Standards

MS MORGAN[®]
SCHAFER
A DOBLE COMPANY



Accuracy Matters

Accurate lab data is critical to sound decision making.

Running certified oil standards is the ideal way to ensure the accuracy of your DGA results.

Morgan Schaffer produces the world's only commercial gas-in-oil and moisture-in-oil standards.

Our oil standards ensure:



Credibility: A Certificate of Concentration is provided for each sample for traceability



Accuracy: Validate the accuracy of your entire analytical process to ensure reliable results



Cost savings: Preparing oil standards requires highly-skilled personnel. For most labs, it is too time-consuming



Efficiency: Confidence in your data eliminates the need to repeat measurements or analyses


TRUE NORTH
Mineral Oil Standard

Syringe S/N:	Lot No.:	Expiry Date:	Prepared by:	QC Approved:
	RN 277A	2017-09-07	RN	

Component	Concentration* (ppm)	Component	Concentration* (ppm)
H ₂ (Hydrogen)	101 ± 5 %	CO ₂ (Carbon Dioxide)	127 ± 5 %
O ₂ (Oxygen)	16400 ± 5 %	C ₂ H ₄ (Ethylene)	103 ± 5 %
N ₂ (Nitrogen)	59100 ± 5 %	C ₂ H ₆ (Ethane)	104 ± 5 %
CH ₄ (Methane)	100 ± 5 %	C ₂ H ₂ (Acetylene)	103 ± 5 %
CO (Carbon Monoxide)	101 ± 5 %		

 (*) Milliliters of gas at 273K and 760 torr per cubic meter of oil. Concentrations are certified by the method of preparation and are verified by laboratory analysis using ASTM D3612 method as well as calibrations using NIST traceable weights. ± defined on a 95% confidence interval for true concentration.
This standard was unitized according to an in-house procedure and is guaranteed to be homogeneous.

True North standards feature:

- Full range of True North standards in mineral oil, synthetic esters oil, silicone oil and natural esters oil
- NIST-traceable ensuring proper calibration of gas extraction and chromatography
- Shelf life 30-day (regular) and 60-day (long-life)
- The 9 gases typically analyzed in DGA: H₂, CO, CH₄, C₂H₂, C₂H₄, C₂H₆, CO₂, O₂ and N₂
- Complete range of concentrations 5, 10, 50, 100, 500 and 1000 ppm
- 30 ml and 50 ml available

Complete Range of Concentrations and Oil Types

Morgan Schaffer's laboratory specializes exclusively in the analysis of dielectric fluids.

Our full range of True North DGA oil standards ensures credibility, accuracy, efficiency and cost-savings backed by our world-class technical support.

As part of our continuous commitment to quality assurance, our product range has grown to include:

- True North gas-in-oil standards is available in a complete portfolio of oil types and concentrations that enable completion of a full five-point calibration curve
- Full range of True North standards in mineral oil, synthetic esters oil, silicone oil and natural esters oil



TRUE NORTH

Mineral Oil Standard



TRUE NORTH

Synthetic Esters Standard



TRUE NORTH

Natural Esters Standard



TRUE NORTH

Silicone Oil Standard



Accuracy sets the standards

Morgan Schaffer's True North is the world's only commercial oil standard.

It makes it easy and affordable to ensure accurate calibration of your laboratory instruments and reliable DGA results – every time.

Contact

For more information about True North oil standards and/or to place an order, please contact our network of partners or our global sales team.

Call or e-mail us today to learn more.

1.514.739.1967 | Toll-Free 1.855.861.1967 | sales@morganschaffer.com

**True North and Atlantis:
Setting the Standards for Quality Assurance.**



True North gas-in-oil standards ensure proper calibration of gas extraction and chromatography

Guaranteed shelf life:

True North: 30 days from syringe filling date
Long Life: 60 days from syringe filling date

Atlantis moisture-in-oil standards allow the validation of the Karl Fischer test method to maintain traceability, precision and accuracy.

Guaranteed shelf life:

30 days from syringe filling date



TRUE NORTH



ATLANTIS

Secure Shipment

- Industry-accepted glass syringes prevent loss of dissolved gases to the atmosphere and contamination by atmospheric components.
- Individual cardboard packages prevent generation of fault gases from exposure to light.
- IATA-accepted outer packaging guarantees safe, timely delivery by air, worldwide.

CIGRÉ and IEC Round Robin Tests

Morgan Schaffer's gas-in-oil standards have been used for CIGRÉ and IEC round robin tests and allowed participating labs to improve their accuracy by quantifying otherwise hard-to-detect calibration biases.

True North and Atlantis:
The world's only commercial oil standards.



**The world's only
commercial oil standards**

Accuracy in everything we do.

Morgan Schaffer's commitment is not limited to our oil standards.

We also ensure excellence in all of our activities:

- On-time delivery
- Superior technical support
- Responsiveness and customer service
- Repair services
- Quality assurance across the board

Contact us today for more information and delivery scheduling.

Morgan Schaffer Ltd.

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Accreditations

Morgan Schaffer is ISO 17034:2016 accredited by the ANSI-ASQ National Accreditation Board for the production of reference materials listed on its scope of accreditation. Morgan Schaffer laboratory is also ISO/IEC 17025:2017 accredited by the ANSI-ASQ National Accreditation Board for the tests listed on its scope of accreditation.