



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

Perry Johnson Laboratory Accreditation, Inc. has assessed the Laboratory of:

Red Ball Technical Gas Services
555 Craig Kennedy Way, Shreveport, LA 71107

(Hereinafter called the Organization) and hereby declares that Organization is accredited in accordance with the recognized International Standard:

ISO/IEC 17025:2017

This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (as outlined by the joint ISO-ILAC-IAF Communiqué dated April 2017):

Testing of Specialty Gases
(As detailed in the supplement)

Accreditation claims for such testing and/or calibration services shall only be made from addresses referenced within this certificate. This Accreditation is granted subject to the system rules governing the Accreditation referred to above, and the Organization hereby covenants with the Accreditation body's duty to observe and comply with the said rules.

For PJLA:

Tracy Szerszen
President

Initial Accreditation Date:

July 03, 2008

Issue Date:

October 12, 2022

Expiration Date:

November 30, 2024

Accreditation No.:

62754

Certificate No.:

L22-694

Perry Johnson Laboratory
Accreditation, Inc. (PJLA)
755 W. Big Beaver, Suite 1325
Troy, Michigan 48084

The validity of this certificate is maintained through ongoing assessments based on a continuous accreditation cycle. The validity of this certificate should be confirmed through the PJLA website: www.pjlabs.com



Certificate of Accreditation: Supplement

Red Ball Technical Gas Services

555 Craig Kennedy Way, Shreveport, LA 71107

Contact Name: LaMeka Dennis Phone: 318-425-3211

Accreditation is granted to the facility to perform the following testing:

FIELD OF TEST	ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	RANGE (WHERE APPROPRIATE) AND DETECTION LIMIT	
Chemical Assay ^F	High Pressure and Cryogenic Gases	Trace Moisture Concentration	Electrolytic moisture analyzer	1.5 µmol/mol to 100 µmol/mol (0.5 µmol/mol LoD)	
		Trace Hydrocarbon Concentration	Flame Ionization Detector	0.1 µmol/mol to 30 µmol/mol (0.018 µmol/mol LoD)	
		Oxygen Concentration	Electrochemical Oxygen Analyzer	0.2 µmol/mol to 1 000 000 µmol/mol (0.052 µmol/mol LoD)	
		Trace Oxygen Concentration		0.4 µmol/mol to 50 µmol/mol (0.12 µmol/mol LoD)	
		Percent Oxygen Concentration	Paramagnetic Oxygen Analyzer	20 mmol/mol to 250 mmol/mol (1.3 mmol/mol LoD)	
		Gas Mixture Concentration	GC with TCD	2.08 mmol/mol to 1 000 mmol/mol (0.69 mmol/mol LoD)	
				GC with FID	0.286 mmol/mol to 1 000 mmol/mol (0.095 mmol/mol LoD)
				Gravimetric Scale	1 µmol/mol to 1 000 000 µmol/mol (0.3 µmol/mol LoD)
				FTIR	1.6 µmol/mol to 250 000 µmol/mol (0.5 µmol/mol LoD)
		Nitric Oxide Concentration	Chemiluminescent	1.2 µmol/mol to 100 µmol/mol (0.38 µmol/mol LoD)	
				10 µmol/mol to 5 000 µmol/mol (2.26 µmol/mol LoD)	
			NDIR	30 µmol/mol to 1 500 µmol/mol (0.86 µmol/mol LoD)	
		Carbon Monoxide Concentration	Gas Correlation IR	100 µmol/mol to 5 000 µmol/mol (2.6 µmol/mol LoD)	
		Sulfur Dioxide Concentration	NDIR	100 µmol/mol to 2 000 µmol/mol (2.3 µmol/mol LoD)	
		Carbon Dioxide Concentration		0.2 cmol/mol to 0.5 cmol/mol (0.06 cmol/mol LoD)	
1 cmol/mol to 25 cmol/mol (0.06 cmol/mol LoD)					

- The presence of a superscript F means that the laboratory performs testing of the indicated parameter at its fixed location. Example: Outside Micrometer^F would mean that the laboratory performs this testing at its fixed location.