



*This certificate is granted and awarded by the authority of the Nadcap Management Council to:*

## *Element Broken Arrow*

*3100 N Hemlock Cir  
Broken Arrow, OK 74012-1115  
United States*

*This certificate demonstrates conformance and recognition of accreditation for specific services, as listed in [www.eAuditNet.com](http://www.eAuditNet.com) on the Qualified Manufacturer's List (QML), to the revision in effect at the time of the audit for:*

## *Materials Testing Laboratories*

Certificate Number: 4821235596  
Expiration Date: 31 August 2027  
Accreditation Length: 18 Months

A handwritten signature in black ink, appearing to read "Jay Solomond".

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**Jay Solomond**  
Executive Vice President & Chief Operating Officer

## SCOPE OF ACCREDITATION

### Materials Testing Laboratories

**Element Broken Arrow**  
3100 N Hemlock Cir  
Broken Arrow, OK 74012-1115

This certificate expiration is updated based on periodic audits. The current expiration date and scope of accreditation are listed at: [www.eAuditNet.com](http://www.eAuditNet.com) - Online QML (Qualified Manufacturer Listing).

In recognition of the successful completion of the PRI evaluation process, accreditation is granted to this facility to perform the following:

#### AC7000 Rev A - AUDIT CRITERIA FOR NADCAP ACCREDITATION

#### AC7101/1 Rev H - Nadcap Audit Criteria for Materials Testing Laboratories – General Requirements for All Laboratories (to be used on audits on/AFTER 10-Dec-2023)

#### AC7101/2 Rev E - Nadcap Audit Criteria for Materials Testing Laboratories – Chemical Analysis (to be used on audits on/after 30 August 2020)

(F) Atomic or Optical Emission Spectroscopy (AES or OES)

(F3) Atomic Emission Spectroscopy – Spark/Arc (S/A–OES)

(G) Elemental Analysis (Combustion or Fusion)

(G1) Carbon

(G5) Sulfur

Specify the Alloy Base for Accreditation

Al Base

Cu Base

Fe Base

Ni Base

#### AC7101/3 Rev D - Nadcap Audit Criteria for Materials Testing Laboratories – Mechanical Testing (to be used on audits on/after 4 December 2016)

(A) Room Temperature Tensile

(N) Impact

(XN) Bend Testing

#### AC7101/4 Rev F - Nadcap Audit Criteria for Materials Testing Laboratories – Metallography and Microindentation Hardness (to be used on/after 14 August, 2016)

(L0) Metallographic Evaluation

(L1) Microindentation (Interior)

(L10) Near Surface Examinations – Carburization / Decarburization

- (L11) Grain Size
- (L12) Inclusion Rating
- (L5) Near Surface Examinations – Microindentation (Surface–Case Depth)
- (L6) Near Surface Examinations – Nitriding
- (L7) Near Surface Examinations – IGA, IGO
- (XL) Macro Examination

**AC7101/5 Rev E - Nadcap Audit Criteria for Materials Testing Laboratories – Hardness Testing (Macro) (to be used on audits on/AFTER 07-May-2023)**

- (M2) Rockwell Hardness
- (M3) Vickers Hardness

**AC7101/6 Rev D - Nadcap Audit Criteria for Materials Testing Laboratories – Corrosion (to be used on/after 1 July 2018)**

- (Q) Salt Spray

**AC7101/7 Rev D - Nadcap Audit Criteria for Materials Testing Laboratories – Mechanical Testing Specimen Preparation (to be used on audits on/after 15 May 2016)**

- (Z) Standard Specimen Machining
- (Z3) Cast Specimens
- (Z4) Special Preparation

**AC7101/14 Rev NA - Nadcap Audit Criteria for Materials Testing Laboratories – Proficiency Testing and Internal Round Robin Requirements for ALL Laboratories (to be used on audits on/AFTER 10-Dec-2023)**

**AC7110/13 Rev C - Nadcap Audit Criteria for Evaluation of Welds (to be used on audits on/AFTER 05-May-2024)**

NOTE: IF YOU ARE SELECTING THE AC7110/13 CHECKLIST YOU MUST ALSO SELECT AC7101/4 – Nadcap Audit Criteria for Materials Testing Laboratories – Metallography and Microhardness. You must also select AC7110/13S

Supplement A – Metallurgical Evaluation of Welder / Welding Operator Qualifications (identify if this process is used)

Supplement B – Metallurgical Evaluation of Fusion Welds (identify if this process is used)

Supplement C – Metallurgical Evaluation of Electron Beam / Laser Welds (identify if this process is used)

Supplement D – Metallurgical Evaluation of Resistance Welds (identify if this process is used)

Supplement E – Bend Test Evaluation of Electron Beam and Laser (for other testing purposes)

Supplement E – Bend Test Evaluation of Fusion Welds (for other testing purposes)

Supplement E – Bend Test Evaluation of Welder/Welding Operator Qualification Welds

**AC7110/13S Rev E - Nadcap Supplemental Audit Criteria for Evaluation of Welds (to be used on audits on/AFTER 13-Aug-2023)**

U11 The Boeing Company  
U13 Bombardier

**ISO/IEC - Currently accredited by an ILAC approved source**

**Lab Type - Lab Type**

Independent

Uncontrolled If Printed