

# Jonathan L. Ridenour – Senior Welding Engineer | Metallurgical Consultant

## Profile / Summary

**Lead Welding & Metallurgical Engineer** with 18+ years of experience providing technical leadership across energy infrastructure, offshore fabrication, and critical systems projects. Proven expertise in developing and qualifying welding procedures for subsea equipment, pressure systems, and high-reliability applications requiring ASME, AWS, API, and DNV compliance. Skilled in automated/mechanized welding systems, metallurgical failure analysis, and supplier qualification for carbon, stainless, alloy, and specialty materials including CRA-lined systems. Recognized for bridging operational gaps through hands-on fabrication support, mentoring technical teams, and implementing quality systems that elevate safety and performance. Experience supporting government facilities (DOE) and working within NQA-1 CGD frameworks. Passionate about advancing welding technology, developing next-generation engineers, and delivering mission-critical results.

## Key Skills

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| ▪ Welding Engineering & Production Support               | ▪ Root Cause Analysis & Failure Investigation               |
| ▪ Welding Consumable Control & Process Optimization      | ▪ Inspection Interpretation / Coordination (RT, UT, MT, PT) |
| ▪ Fabrication Management & Readiness Reviews             | ▪ Cross-Disciplinary Team Development & Mentorship          |
| ▪ Weld Procedure Development / Qualification (WPS/PQR)   | ▪ Automated / Mechanized Welding Systems                    |
| ▪ Global Supplier Qualification & Technical Surveillance | ▪ Code Compliance (ASME, AWS, API, DNV, NQA-1)              |
| ▪ DOE/Government Facility Support                        | ▪ Documentation & Quality Oversight                         |

## Career Highlights

- **Advanced automated and mechanized welding expertise through progressive technical leadership roles in increasingly critical regulatory environments**, developing and qualifying automated GMAW, GTAW, and SAW procedures at Serimax for major operators including BP, Shell, and Petrobras. Applied this foundation to high-scrutiny post-Deepwater Horizon offshore projects while overseeing supplier qualification programs for Hess *Tubular Bells* and Deep Gulf Energy *Kodiak*. Demonstrated mastery of procedure development, inspection coordination, and quality oversight where automated welding systems were critical to achieving production rates while maintaining weld integrity under heightened regulatory oversight and technical requirements.
- **Served as technical liaison for welding and materials QA for multiple owner-operator projects**, including offshore equipment and subsea pipelines for Hess *Tubular Bells* and Deep Gulf Energy *Kodiak*. Led global supplier qualification and welding procedure development programs, ensuring compliance with ASME, AWS, API 1104 and DNV standards. Partnered with cross-functional teams to clarify contract obligations, resolve quality issues, and validate readiness for key manufacturing milestones. These efforts contributed to over \$1.5M in contract revenue under Tonic LLC and demonstrated a sustained track record of delivering compliant, cost-effective solutions for complex materials applications in subsea and pressure service environments.
- **Co-authored a project-specific Reel-Lay CRA-Lined Pipe Girth Welding Specification** filling a critical gap in U.S. industry standards which later influenced updates to DNVGL-ST-F101. Collaborated across materials, welding, and QA teams to define mechanical testing protocols, ensure global supplier & consumable compliance, and reduce project risk through robust documentation and qualification oversight. These initial efforts became the model for subsequent deepwater CRA-lined pipeline projects, improving weld consistency, reducing qualification turnaround time, and ensuring fit-for-purpose.

## Career History / Work Experience

### 2012 – 2021; 2023 – Present: Tonic LLC: Founder / Principal Welding Engineer & Metallurgical Engineer

Founded Tonic LLC to provide welding engineering, metallurgical support, and leadership development to the oil, gas, and petrochemical industry.

- Served as technical lead and primary client liaison on multiple offshore pipeline installation projects, managing cross-functional teams and ensuring milestones were met safely and within scope.
- Delivered welding, QA/QC, and metallurgical engineering support for subsea equipment and pressure-retaining systems, integrating design intent with fabrication execution.
- Conducted supplier audits and inspection oversight across global yards to ensure readiness and code compliance.

- Performed root-cause analyses and fit-for-purpose evaluations of weld and material discrepancies, issuing detailed corrective-action recommendations to restore compliance and prevent recurrence.

#### **2025: Accrediting Commission of Career Schools and Colleges, Rockford, IL: Subject Matter Expert**

- Served as welding technology subject matter expert for Rockford Career College accreditation review.
- Evaluated welding curriculum, laboratory facilities, equipment, and instructional quality against ACCSC standards.

#### **2024: TorcSill, Houston, TX: Client Inspector / Welding Consultant (Contract)**

- Provided welding and fabrication oversight for project continuation, building on prior Sur de Texas pipeline experience.
- Engaged to conduct supplier quality audits and inspection coordination across fabrication sites.

#### **2021 - 2023: CTLGroup, Skokie, IL: Senior Materials Consultant (Direct)**

CTLGroup is a globally recognized engineering and materials science consulting firm with a rich history in concrete and cementitious systems.

- Expanded CTLGroup into metallic materials consulting, integrating metallurgical testing and welding methods alongside established concrete research programs.
- Led forensic investigations of weld failures, corrosion, and material degradation using SEM, XRF, FTIR, and metallography to support litigation, insurance, and warranty claims.
- Managed over \$500k in consulting projects during first year, serving as third-party inspector for U.S. Department of Energy molten-salt storage tank repairs affected by Stress Corrosion Cracking.
- Applied NQA-1 CGD requirements through nuclear-grade component evaluation and supplier qualification work.

#### **2019 - 2021: Axis Pipeline Construction LLC, Houston, TX: Engineering Group Manager (Direct)**

- Directed engineering and QA/QC resource planning across multiple offshore fabrication and installation projects.
- Managed recruitment, technical assignment, and performance oversight of engineering, HSE and supervisory personnel.
- Enhanced bid and tender documentation processes, improving client engagement and project alignment.

##### **2021 - 2021: Fieldwood Energy LLC, Houston, TX: Project Field Engineer**

- Served as Company Person in Charge (PIC) during offshore SIMOPS campaigns in the Gulf of Mexico.
- Coordinated daily vessel and installation operations with onshore engineering and construction management.

##### **2020 - 2020: Fieldwood Energy LLC, Houston, TX: Pipeline Delivery Interface Lead**

- Managed technical interfaces among subcontractors, contractors, and client teams for pipeline delivery work.
- Oversaw fabrication and quality inspections, escalating safety and fit-for-purpose concerns to ensure compliance.

##### **2019 - 2020: Meridian Energy Group, Houston, TX: Engineering Resource Coordinator**

- Identified and screened engineering, HSE, and construction management candidates for Davis Refinery development.
- Coordinated interview logistics and provided feedback to hiring managers on candidate suitability and cultural fit.

##### **2019 - 2019: Fieldwood Energy LLC, Houston, TX: Welding Engineer**

- Developed project-specific welding specifications and technical requirements during pre-award contract phase to reduce risk and ensure fabrication readiness.

#### **2014 - 2016: Deep Gulf Energy (Kodiak Project), Houston, TX: Welding Engineer / Spoolbase Site Lead (Contract)**

##### **Spoolbase Site Lead (2015-2016):**

- Managed day-to-day welding and inspection operations, supervising inspection team leads at the Mobile spoolbase facility.
- Monitored weld production, repair rates, and equipment performance to assess and improve operational efficiency.
- Collaborated with EPC management to resolve production bottlenecks and equipment issues, maintaining project schedule.

##### **Welding Engineer (2014-2015):**

- Coordinated global vendor activities and procedure qualification for CRA-lined subsea pipeline fabrication.
- Reviewed vendor welding procedures, fabrication sequences, and inspection plans ensuring code compliance.
- Coordinated with metallurgical labs and field inspection teams to validate process repeatability prior to production.
- Issued weekly progress updates to management, highlighting production readiness, repair trends, and procedural gaps.

#### **2012 - 2015: Hess (Tubular Bells Project), Houston, TX: Welding Engineer (Contract)**

- Oversaw welding operations and documentation for multiple subsea fabrication vendors across domestic and international sites, ensuring compliance with ASME Section IX, API 1104, and DNV standards.

- Reviewed and approved welding procedures, fabrication sequences, inspection plans, and technical queries while collaborating with design engineering and procurement on materials selection and welding design.
- Issued daily reports tracking weld & repair rates, defect locations, and equipment downtime across fabrication sites.
- Resolved welding qualification failures in high-hardness and dissimilar metal welds, providing metallurgical guidance to mitigate cracking and maintain production schedules.

#### **2008 - 2012: Serimax, Houston, TX: Welding Engineer (Direct)**

- Designed and qualified welding procedures for major offshore operators including BP, Shell, ExxonMobil, Petrobras, and Anadarko, developing automated GMAW, GTAW, and SAW procedures for high-strength steels up to X80 grade.
- Reviewed client specifications, prepared test matrices, and managed mechanical testing, NDE, and PQR validation programs to support bid tenders and project execution.
- Provided on-site welding engineering support during production, tracking weld performance data, defect frequency, and equipment downtime while troubleshooting process issues.
- Led WPQT Process Improvement Team to streamline qualification workflows, reduce shop costs, close procedural gaps, and enhance safety awareness across operations.

#### **2006: Woodward Governor Co., Rockford, IL: Materials Laboratory Technician (Internship)**

- Conducted metallurgical testing and failure investigations on stainless steel, aluminum, and beryllium-copper aerospace components.
- Performed SEM and FTIR analysis to identify contamination and fracture origins in welded and brazed assemblies.
- Supported electron beam welding operations, providing root cause analysis to production supervisors.

**Earlier Career** (details available upon request) 2018: INTECSEA (Sur du Texas Tuxpan) - Client Inspector | 2017: Master Marine (Johan Sverdrup Haven) - Client Representative | 2006-2007: CB&I Howe-Baker - QC Inspector | 2005: Challenger Process Systems - QC Assistant | 2003-2005: LeTourneau University - Lab/Teaching/Research Assistant | 2003: Trinity Industries - Welder | 1999-2000: Alloy Engineering – Welder

#### **Education**

- **B.S. Engineering Technology – Materials Joining, Welding & Metallurgy**  
Minors: **Mathematics, Christian Ministries** | **LeTourneau University (2003 – 2007)**

#### **Technical Competencies & Certifications**

**Active Certifications:** NQA-1 CGD Dedication Experience (2021-2023) | TWIC Card (expires 2030) | H2S Awareness

**Code Compliance:** ASME Section IX, AWS D1.1, API 1104, DNVGL ST-F101/RP-F108/RP-F118, NQA-1, ISO 9001, NACE MR0175

**Materials Experience:** High-strength steels (X52-X80), CRA-lined systems, stainless steel, chromoly, beryllium-copper

**Processes:** Automated GMAW/GTAW/SAW, mechanized systems, SMAW, FCAW, electron beam welding, brazing

**Analytical Methods:** SEM, XRF, FTIR, metallography, microhardness, mechanical testing

**Software:** MS Office, AutoCAD, SharePoint, document control systems Familiar with ASTM (E8, E18, E1112, E384), ISO 9001, and NQA-1 CGD

#### **Leadership & Community Involvement**

CityLine Bible Church: Finance Committee Member, Community Group Co-Leader (2023-2025) | Antioch Community Church: Life Group Section Leader, Life Group Leader, Missions Team Lead (Greece), Disaster Relief Team Lead (Baton Rouge) (2016-2021) | Acts of Mercy: Base Operations Manager (Houston & Athens) (2016) | LeTourneau University: Chaplain (2005-2007) | Young Life: Youth Leader (2005-2007) | Ravencrest Bible School: Summer Program Volunteer (Estes Park, CO) (2002) | Parkland Christian Community: President (Champaign, IL) (2001-2002)

#### **Personal Details**

- Address: Illinois
- US Passport: Valid from 2020 to 2030
- Nationality: US Citizen