

## NSL ANALYTICAL SERVICES, INC.

### TEST, ANALYZE, CHARACTERIZE

#### ADDITIVE MANUFACTURING: A NEW FRONTIER IN TESTING

NSL Analytical Services, Inc. (NSL), a materials testing company, has long focused on the raw materials (metal powders) used to grow finished parts, and its analytical results have helped support the rise of Additive Manufacturing (AM) for over 25 years. "As an analytical laboratory, we have been testing metal powders for more than 40 years. Testing the chemical composition is a natural thing for us and we're bringing that expertise to AM in a new way," shares Larry Somrack, President of NSL. "New clients are now more interested in how the powders behave after multiple runs in a powder bed application. The properties of metal powder reuse are a hot topic right now and companies are hungry for scientific data."

NSL offers complete Chemical Composition, Powder Characterization and Metallurgical Evaluation for AM applications. Our technical specialists work with clients to verify feed stock, identify mechanical and chemical properties, and improve the properties of their products.

NSL's Metallurgists and Chemists help the client to understand the chemistry and physical properties of powder metal and how the powder responds to Direct Metal Laser Sintering (DMLS) over multiple runs. Our Metallurgical Engineers apply their industrial experience to the process, assisting customers at identifying and preventing problems.

NSL's team is actively involved in organizations such as ASM, SAE and the ASTM F42 Committee on Additive Manufacturing Technologies, assisting the industry in establishing guidelines, test methods and standards.

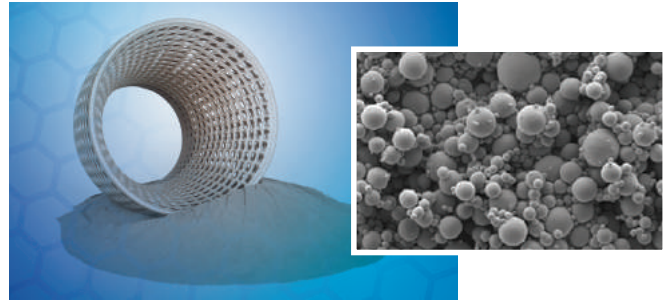
#### CUSTOMERS ASK AND NSL RESPONDS

More than just providing numbers, NSL listens to help customers reach the highest standards of product quality from design to product launch. Customers rely on NSL to meet their production needs by providing rush results, detailed failure analysis and consulting services.

When you require material characterization, quality control checks, process evaluation, failure analysis, or specialized testing, you can trust the staff of NSL to provide accurate, reliable and repeatable testing results.

Our testing capabilities include:

- Bulk Chemistries for Alloys
- Inorganic Trace Element Analysis
- Thermal Analysis
- Mechanical Testing



- Microscopy Evaluations
- Metallurgical Evaluations

#### QUALITY AND SAFETY COME FIRST

Through the dedication of NSL employees, their determination for excellence and the integrity of their work, NSL has achieved great success in the laboratory testing industry. NSL continues to dedicate itself to a culture of safety, continuous improvement, employee training, and a robust quality system. NSL maintains major industry accreditations and approvals such as:

- ISO/IEC 17025
- Nadcap
- GE-S-400
- Boeing
- SNECMA
- Rolls-Royce
- Pratt & Whitney
- ASME NQA-1 compliant
- 10 CFR Part 21
- 10 CFR 50 Appendix B

#### TRUST - TECHNOLOGY - TURNAROUND

NSL is dedicated to being one of most reliable test labs in the world. Customers can trust us with their most critical materials testing needs.

To learn how NSL can work with you, visit us at **NSLanalytical.com** or call our technical sales team at **877.560.3875**.



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