

# TECHNICAL SERVICES | TESTING | PROCESS TECHNOLOGY

NEXOSOLUTIONS.COM

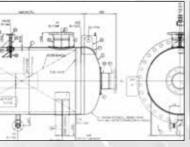
# NexoSolutions

## Engineering Solutions Technical Services, Testing & Process Technology

Nexo Solutions provides technical services, testing and process technology. We assist clients with contamination identification, analysis, poorly performing separation systems and related process contamination impacts including foaming, fouling, corrosion, not meeting product specifications, and others. We improve plant profitability by utilizing expert contamination analysis, process understanding, on-site troubleshooting and customized separation systems. It is our commitment to provide comprehensive technical services and technology enabling plants to operate more efficiently, with lower costs, higher reliability, increased throughput/capacity, and consistent stability.

#### Contamination control is key to process stability and plant performance.









### Application Specialties

- NGL/Condensate/LPG Treating
- Amine Recovery
- H<sub>2</sub>S and Mercaptan Removal
- Foaming Troubleshooting
- Emulsified Liquid Contaminants
- Gas Aerosol Contaminants
- Inlet Separations
- Fouling and Corrosion Control
- Fuel Gas Conditioning

## Technical Services

- Process Separations Engineering
- Equipment Performance Validation
- New Vessel Designs
- Vessel Design Reconfigurations
- Contamination Troubleshooting
- Expert Witness Services
- Technical Training
- On-Site Testing and Assessments
- On-Site Gas Chromatography Testing

## Testing Services

- On-Site Sample Extraction: Liquid and Gas Streams
- Sample Testing and Analysis: On-Site and Laboratory
- Root-Cause Contamination Determination
- Data Interpretation
- Chemical Composition Analysis
- Gas Composition Analysis
- Analytical Evaluation of Spent Filter Media
- On-Site Contaminant Qualification and Quantification





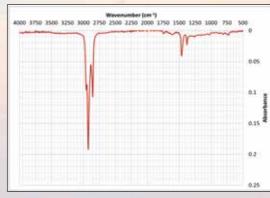




## Laboratory Services

- Spectroscopy (UV-Vis, FT-IR, EDX/XRD, AA)
- Spectrometry
- Chromatography (IC, GC and CG-MS)
- Thermal Gravimetric Analysis (TGA)
- Filterability
- Microscopy
- Solubility
- Metals (ICP-AES)
- High Temperature Simulated Distillation
- Surface Tension and Rheology
- Water Content
- Hydrocarbon Content
- Gas Analysis
- Fouling Tendency
- Unknown Sample Analysis
- Custom Analytical Methods







## Process Technologies



#### **Provia Technologies for Adsorption, Purification and Reaction**

Utilizes advanced solid state chemistry contacting technology specifically designed to remove soluble contaminants from gas and liquid streams. Provia Technologies' high efficiency inlet separation designs allow for maximum bed performance, lifetime and efficiency. Completely skidded packages and can treat several process streams.

Applications: natural gas, off gas, flare gas, condensates & natural gas liquids (NGL), butane/propane and liquefied petroleum gas (LPG).

#### **XPHASE®** Coalescing Systems

Incorporates the latest generation of technologies for coalescing in gas or liquid streams. XPHASE Coalescing Systems advanced vessel designs and internals are based on combining years of field experience and state of the art principles, materials research, and calculations. **Applications:** Inlet separation, compressor protection, lubrication oil recovery, low NOx burner protection, hydrocarbon-water separation rich amine-hydrocarbon removal, sour water-hydrocarbon separation, produced water-hydrocarbon removal.

#### IntelliSys<sup>™</sup> Process Separation, Gas Coalescer and Filtration Simulator

On-line service program applies advanced algorithms and field experience-based criteria to accurately calculate proper separator sizes to ensure optimal in-the-field performance. Provides key parameters to reveal deficiencies in new and existing vessel designs.

#### Intellichem<sup>®</sup> MR and HR Chemical Additives for Mercaptans and H<sub>2</sub>S Removal

Specially formulated, water-soluble, non-corrosive blend that produces an instantaneous, irreversible reaction resulting in non-hazardous sulfate salt by-products. Extremely effective in removing H<sub>2</sub>S and mercaptans from hydrocarbon condensates, NGL streams, crude, fuel oils, water, gas streams, off gas, and many other streams.

#### Envirosol<sup>™</sup> Advanced Surfactant Technologies

Uniquely formulated to significantly reduce surface tension between hydrocarbons and water resulting in emulsification of liquids into a stable, homogeneous mixture. Proven effective in bioremediation and for removing oils, greases from surfaces.





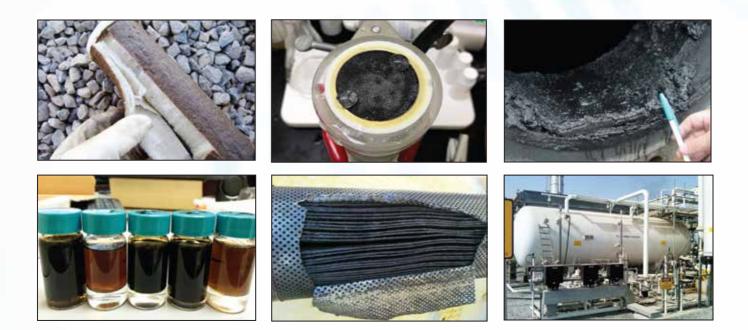
## Technical Training

Nexo Solutions has acquired considerable expertise while working with many processing plants around the globe. We want to pass along this knowledge as we believe that everyone in our industry should understand how to properly implement filtration and separation methods for contamination control.



**N**exo Solutions offers a series of on-site technical training courses on a variety of topics. Every course is tailored towards specific company needs, and relatable real life case studies taken from current and previous projects are examined. Some of the course topics offered include:

- Filtration & Separation: Design, Applications and Troubleshooting
- Contamination Removal in Inlet Feed Gas and Compression Stations
- Filtration & Separation in Gas Processing Operations
- Filtration & Separation in Refinery Operations
- Filtration & Separation for Amine Units and Tail Gas Treating Units
- Produced Water and Sour Water Contamination Removal



From upstream oil & gas to refineries, gas processing, water & waste treatment, and chemical industries, we have the experience, knowledge, and tools to take on your toughest process contamination challenges and provide the right answer.





Nexo Solutions | 25003 Pitkin Road, Suite A100 | The Woodlands, TX 77386 Phone +1(832) 510 8191 | Support@NexoSolutions.com NEXOSOLUTIONS.COM