

**CHEM-TECH**<sup>®</sup>  
LABORATORIES

**ELEVATING  
EQUIPMENT  
PERFORMANCE,  
THROUGH LUBRICANT  
& FLUID ANALYSIS**

**ACCURACY**

**RELIABILITY**

**QUALITY WITH CONFIDENCE**

Empowering you with excellence and trust, every step of the journey.

Complete Lubricants, Fuels, Coolant & AdBlue Testing Services under one roof.

**QUALITY**



## About Chem-Tech Laboratories

### Precision Testing, Proven Results

Chem-Tech fuel is the best fuel testing laboratory in India. Our testing services include Diesel Testing, Marine Testing, Biodiesel Testing, Ethanol Testing, Gasoline Testing, Coal Testing, Briquette Testing etc. Chem-Tech Laboratories tests a wide range of fuels for full quality specifications, following industry standards such as ASTM, ISO, and IP test method protocols.

Our fuel analysis laboratories will assess your individual needs and find analytical solutions quickly and efficiently. Testing of the fuels is conducted by experienced chemists and analysis with decades of experience in fuel testing and analysis. After the analysis experts review the test data and provide interpretation on specific issues with the fuel. Our prompt service and extensive customer support has helped customers in achieving definitive ROI on the fuel quality monitoring programs.

## NABL Approved



## BIS Recognised



### Mission



- To make an impact and to help customers improve their products & services.
- To provide world class testing & analysis services
- To be the partner of choice for companies of any size from single-manned to multinational conglomerates

### Vision



- To be a premier, highly sophisticated Testing, Consulting & Certification service company in India.
- To be a one-stop testing & consultancy company for all Industries & Sectors.

### Values



- ☑ Integrity
- ☑ Transparency
- ☑ Consistency
- ☑ Quality
- ☑ Teamwork

25<sup>+</sup>

YEARS OF  
EXPERIENCE

4000<sup>+</sup>

SATISFIED  
CUSTOMERS

85%<sup>+</sup>

REPEAT  
CUSTOMERS

500<sup>+</sup>

PROJECTS  
COMPLETED

## Oil Analysis

Chem-Tech® Laboratories is a Leader in Oil & Grease analysis. Oil analysis was first used to monitor the condition of locomotives. Today it is used in more ways than can be listed. These are a few areas we cover.

### Work Areas

Oil Condition Monitoring, Failure Analysis, Wear Metal Analysis, Specification Testing, Oil Extension Trials, Grease Analysis, and Predictive Maintenance.

The lifeline of a machine is oil. Routine analysis of the oil prevents larger problems. We analyze equipment for mechanical, operational and environmental factors that could affect the lubricants.

### Industries Served

Automotive	Mining
Construction	Earthmoving
Heavy Machinery	Shipping
Power Generation	Marine
Aviation	

From your daily commute to the power supply in your company, we work towards keeping it healthy.



## CAPABILITY

Engine Oils ( Gas, Diesel & Gasoline Engine Oils)	Automotive Oil (Axle, Gear, Transmission)	Industrial Oils (Hydraulic, Gear, Turbine, Compressor)	Quenching Oils
Kinematic Viscosity	Kinematic Viscosity	Kinematic Viscosity	Kinematic Viscosity
Total Acid Number	Total Acid Number	Total Acid Number	Total Acid Number
Total Base Number	Water Content	Water Content	Water Content
Flash Point	Flash Point	Flash Point	Flash Point
Pour Point	FTIR – Oxidation	Particle Count	Cooling Curve Analysis
Soot Content	Elemental Analysis	FTIR - Oxidation	
FTIR - Oxidation	Oxidation Stability	Foaming Tendency & Stability	
FTIR – Nitration	PQ Index	Emulsion Characteristics	
Fuel Dilution	Ferrography	Air Release Value	
Glycol Contamination	Foaming Tendency & Stability	Elemental Analysis	
Elemental Analysis		Oxidation Stability	
Ferrography		PQ Index	
		Ferrography	

**& Many More Tests.**

### It of course helps in maintenance and management by :

- Reducing in-service failures and field repair
- Eliminating needless repairs &
- Controlling the cost of spares and replacements

We also address reliability challenges across every department and level in companies and help customers improve their existing products.

### Benefits of Lubricant Analysis

Lubricant analysis helps utilize resources better by:

- Decreasing unscheduled downtime
- Increasing the overall components lifespan
- Controlling lube consumption & oil disposal costs
- Assisting in product selection, comparison and verification &
- Planning scheduled maintenance



## Grease Testing

At Chem-Tech Laboratories, we understand the critical role that grease plays in ensuring the smooth operation of machinery across various industries. Our experts and cutting-edge instrumentation offer a comprehensive suite of grease testing services, addressing key parameters that impact performance and longevity.

### Work Areas

Grease Condition Monitoring, Performance Testing, Contamination Analysis. Routine analysis of the grease helps predict smaller contaminants which lead to failure or larger problems. We analyze equipment for mechanical, operational and environmental factors that could affect the grease.

### Industries Served

Automotive	Mining
Construction	Earthmoving
Heavy Machinery	Shipping
Power Generation	Marine
Aviation	



## CAPABILITY

<b>Grease Condition Monitoring</b>	<b>Routine Quality Testing</b>
Water Content	Base Oil Viscosity
Elemental Analysis	Drop Point
PQ Index	NLGI Grade
FTIR Analysis	Cone Penetration
	Copper Corrosion
<b>Performance Testing</b>	
Oxidation Stability	
EP Properties - Weld Load & Wear Scar	
Oil Separation Characteristics	
Rust Preventive Characteristics	
Emcor Rust Test	
Water Washout	
Timken OK Load	
Roll Stability	



### Benefits of Grease Testing

- Detect equipment issues at very initial stages
- Optimize Equipment Performance & Life
- Predictive Maintenance Strategy Implementation
- Data-Driven Decision-Making
- Reduce Downtime & Operational costs

## Fuel & Biofuel Analysis

Chem-Tech® Laboratories is capable of testing fuels to International and National regulatory specifications which include IS, ASTM, ISO and EN. and IS. We've also tied up with multiple labs across the country. This lets us share resources to provide better, more accurate solutions

In-house expertise and analytical resources make Chem-Tech® a preferred fuel testing and analysis lab for troubleshooting, trace contamination issues, and the most demanding fuel analysis.

### Work Areas

Fuel Quality Analysis, Contamination Analysis, Adulteration Analysis, Calorific Value Studies, Blending studies, Fuel Stability analysis, Chemical and Microbial Analysis.

### Industries Served

Automobile	Mining
Construction	Earthmoving
Heavy Machinery	Shipping
Power Generation	Aviation
Marine	Petroleum

Regulatory bodies are constantly updating their fuel regulations, which is why fuel testing becomes even more important.



### Capability of Testing as per various National and International Specifications

Diesel	Gasoline	Furnace Oil	Marine Fuel	Biofuel
IS 1460	IS 2796	IS 1593	ISO 8217	EN 14214
ASTM D 975		ASTM D 396		ASTM D 6751

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## AD BLUE & DEF Analysis

Diesel Emissions Fluids (DEF) are tested for quality specifications and potential contaminations. Often referred to as AdBlue® in Indian and other markets, DEF is required by many modern diesel engine applications using Selective Catalytic Reduction (SCR) technology to reduce oxides of nitrogen exhaust.

SCR systems are part of the engine powertrain configuration, and contaminants or impurities in the AdBlue® or DEF could cause the SCR system to malfunction or fail. Thus, it is important to maintain DEF quality standards as characterized in the ISO 22241-1 standard. Chem-Tech® provides a full range of prompt DEF testing and analysis conforming to industry standards.

### Work Areas

Specification testing, contamination analysis, Adulteration analysis

### Industries Served

Automobile	Mining
Construction	Earthmoving
Heavy Machinery	



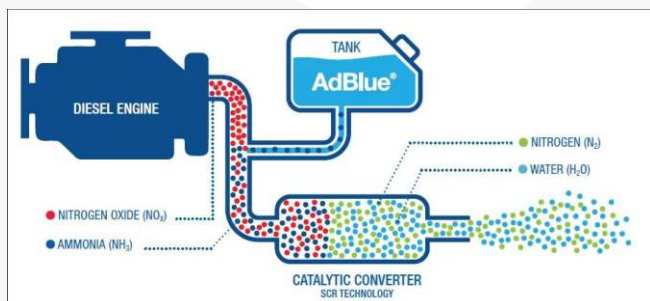
## Capability for testing of AD BLUE & DEF

### DEF, AD BLUE testing as per ISO 22241

- ISO 22241-2 Annex B/C Urea Content
- ISO 12185 Density at 20 C
- ISO 22241-2 Annex C Refractive Index at 20C
- ISO 22241-2 Annex D Alkalinity as NH<sub>3</sub>
- ISO 22241-2 Annex E Biuret content
- ISO 22241-2 Annex F Aldehydes content
- ISO 22241-2 Annex G Insoluble Matter content
- ISO 22241-2 Annex H Phosphate (PO<sub>4</sub>)
- ISO 22241-2 Annex I Ca, Fe, Cu, Zn, Cr, Ni, Al, Mg, Na, K
- ISO 22241-2 Annex J Identity (FTIR)
- ISO 4406 – Particle Count and Contamination.

### Benefits of AD BLUE Analysis

- Confirms compliance requirements to global standards
- Reduces emissions
- Monitors the quality of Ad Blue used in equipment.
- Optimises combustion and increases fuel efficiency





## Benefits of Coolant Analysis

- Reduces downtime
- Decreases engine and cooling system repairs
- Eliminates unnecessary coolant drains
- Lessens coolant replacement and disposal costs

## Coolant Testing

Chem-Tech® Laboratories coolant analysis program takes the guesswork out of cooling system maintenance. Coolant testing at regularly scheduled maintenance intervals can identify system problems before catastrophic engine failure occurs, cooling system malfunctions, corrosion etc.

### Capability for Testing & Analysis

#### Physical Tests :

- Visuals (color, foam, oil, fuel, magnetic precipitate, non-magnetic precipitate, & odor)
- pH • Glycol % • Water % • Freeze Point
- Nitrite • Specific Conductance • Total Hardness

#### Corrosion Metals & Inhibitors by ICP-AES :

- Iron • Copper • Aluminum • Lead • Tin
- Zinc • Silver • Calcium • Magnesium • Borate
- Silicon • Molybdate • Phosphorus • Potassium Sodium

Apart from testing of used coolant analysis, Chem-Tech® has capability for testing as per IS 5759, JIS 2234 and ASTM D 3306 specifications.

### Industries Served

Automobile	Shipping
Mining	Power Generation
Construction	Aviation
Earthmoving	Marine
Heavy Machinery	

## SOME OF OUR ESTEEMED CUSTOMERS



**CHEM-TECH<sup>®</sup>**  
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