



# Southwest Spectro-Chem Labs

## STANDARD LAB ANALYSES

| ANALYSIS  | STANDARD   |
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| API Gravity   | ASTM D 1298  |
| Ash - Greases   | ASTM D 128   |
| Ash - Lubricants  | ASTM D 482   |
| Ash - Sulfated  | ASTM D 874   |
| Chloride in oil or water  |  |
| Cloud Point   | ASTM D 2500  |
| Color   | ASTM D 1500  |
| Coolant/Glycol Analysis   | SWSC Labs Standard   |
| Conradson Carbon Residue  | ASTM D 189   |
| Copper Strip Corrosion  | ASTM D 130   |
| Demulsibility   | ASTM D 2711  |
| Deposit Analysis  | SWSC Labs Standard   |
| Diesel Fuel - Specific Gravity  | ASTM D 1298  |
| - Specific Gravity @ 60 °F  | ASTM D 1250  |
| - API Gravity   | ASTM D 1298  |
| - COC Flash Point   | ASTM D 92  |
| - Viscosity @ 100 °F  | ASTM D 2161  |
| - Karl Fischer Water  | ASTM D 1720  |
| - Filtered Solids   | ASTM D 2273  |
| - Copper Strip Corrosion  | ASTM D 130   |
| - Micro Exam for Algae and Debris   | SWSC Labs Standard   |
| - Cetane Number   | ASTM D 613   |
| Emulsion (Water Separability)   | ASTM D 1401  |
| Ferrographic Analysis - Analytical<br>- Direct Read   | SWSC Labs Procedure<br>PREDICT Technologies<br>Instruction Manual  |
| Filter Analysis - Metals Analysis<br>- Ferrographic Analysis<br>- FTIR<br>- Karl Fischer Water<br>- TAN | Spectrol, Inc. Technical Manual<br>SWSC Labs Standard<br>SWSC Labs Standard<br>ASTM D 1720<br>ASTM D 974 |
| Filtered Solids (Sediment)  | ASTM D 2273  |
| Flash Point - Cleveland Open Cup & Fire Point<br>- Pensky-Martens Closed Cup                            | ASTM D 92<br>ASTM D 93   |
| Foaming Characteristics   | ASTM D 892   |
| Freon (Refrigerants) - Total Acid Number (TAN)<br>- High Boiling Residue<br>- Karl Fischer Water        | <b>AHRI S-700 Methods</b>  |

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| Fuel Analysis - Emission Spectrometer<br>- Copper Corrosion<br>- Viscosity @ 40°C<br>- Karl Fischer Water<br>- Flash Point<br>- API & Specific Gravity   | ASTM D 5185<br>ASTM D 130<br>ASTM D 445<br>ASTM D 6304<br>ASTM D 92<br>ASTM D 1298  |
| Grease<br>- AGMA Hardness<br>- Metals by Emission Spectroscopy<br>- Total Acid Number (TAN)<br>- Karl Fischer Water  | ASTM D 4289<br>Spectrol, Inc. Technical Manual<br>ASTM D 974, ASTM D 664<br>ASTM D 1720   |
| Infrared Analysis - Analytical   | SWSC Labs Standard  |
| Membrane Patch Colorimetry (MPC)   | ASTM D 7843   |
| Metals Analysis - Additive Elements by ICP<br>- Used Lube Oils by ICP<br>- Used Lubed Oils by Rotrode Emission Spectroscopy  | ASTM D 4951<br>ASTM D 5185<br>ASTM D 6595<br>Spectrok Inc. Technical Manual   |
| Micropatch (microscope analysis, photomicrographs and report)  | SWSC Labs Standard  |
| Neutralization - Total Acid Number (TAN)<br>- Total Base Number (TBN)  | ASTM D 974, ASTM D 664<br>ASTM D 974, ASTM D 4739   |
| Oil & Grease in Water  | ASTM D 4807   |
| Particle Count - Filter<br>- Laser   | ISO 4407, NAS 1638<br>ISO 4406  |
| Pour Point   | ASTM D 97   |
| RULer  | ASTM D 6971   |
| Specific Gravity   | ASTM D 1298   |
| Total Ash Content  | ASTM D 2584, ASTM D 5630  |
| Total Suspended Solids (TSS) in Oil/Water  | Per Standard Methods  |
| Varnish Formation Tendency (VFT)<br>- Metals Analysis<br>- Kinematic Viscosity<br>- TAN<br>- Karl Fischer Water<br>- Ferrography, Direct Read<br>- Oxidation/Nitration<br>- ISO Particle Count<br>- RULer<br>- MPC | ASTM D 5185<br>ASTM D 445<br>ASTM D 974<br>ASTM D 6304<br>PREDICT Technologies Manual<br>Thermo Scientific Manual<br>ISO 4406<br>ASTM D 6971<br>ASTM D 7843 |
| Viscosity - Kinematic (40°C & 100°C)<br>- Saybolt (100°F & 210°F)<br>- Viscosity Index (VI)  | ASTM D 445<br>ASTM D 2161<br>ASTM D2270   |
| Water Analysis (complete chemical analysis available)  | Per Standard Methods  |
| Water Content  | ASTM D 6304   |
| Water Source Determination   | SWSC Labs Standard  |
| W.I.T.S. (What Is This Stuff)  | SWSC Labs Standard  |