CORROSION CONTAMINANTS COOLANT CONDITION

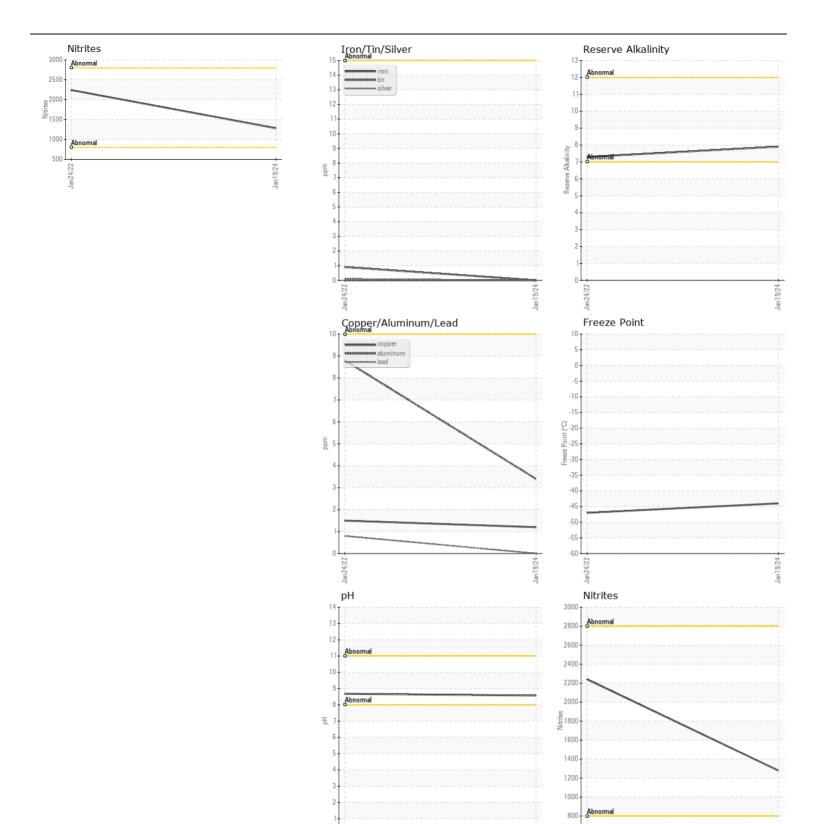
NORMAL NORMAL NORMAL

MCMASTER UNIVERSITY [151223]

79670971 Component Coolant

CONVENTIONAL COOLANT (--- GAL)

| CONVENTIONAL COOLANT (GAL) | | | | | | | |
|---|--------------------|------------|-----------------|-----------|-------------|-------------|----------|
| RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
| The fluid is suitable for further service. Resample at the next service interval to monitor. | Sample Number | | Client Info | | CU0023306 | CU0019031 | |
| | Sample Date | | Client Info | | 19 Jan 2024 | 24 Jan 2022 | |
| | Machine Age | hrs | Client Info | | 121 | 89 | |
| | Oil Age | hrs | Client Info | | 0 | 0 | |
| | Oil Changed | | Client Info | | Not Changd | Not Changd | |
| | Sample Status | | | | NORMAL | NORMAL | |
| CORROSION | Iron | ppm | ASTM D5185(m) | >15 | 0 | <1 | |
| All metal levels are normal indicating no corrosion in the cooling system. | Aluminum | ppm | ASTM D5185(m) | >10 | 3 | 9 | |
| | Copper | ppm | ASTM D5185(m) | >10 | 1 | 2 | |
| | Lead | ppm | ASTM D5185(m) | >10 | 0 | <1 | |
| | Tin | ppm | ASTM D5185(m) | >10 | 0 | 0 | |
| | Silver | ppm | ASTM D5185(m) | >10 | 0 | <1 | |
| | Zinc | ppm | ASTM D5185(m) | >10 | <1 | 1 | |
| CONTAMINANTS | Calcium | ppm | ASTM D5185(m) | >100 | 1 | 2 | |
| There is no indication of any contamination in the coolant. | Magnesium | ppm | ASTM D5185(m) | >40 | <1 | <1 | |
| | Appearance | scalar | Visual* | NORML | NORML | NORML | |
| | Odor | scalar | Visual* | NORML | NORML | NORML | |
| | Coolant Appearance | | Visual* | Clear | Clear | Clear | |
| COOLANT CONDITION The nitrite level is acceptable. The pH level of this fluid is within the acceptable limits. The reserve alkalinity of this fluid is acceptable. | Boiling Point | °C | WC Method* | | 108 | | |
| | Specific Gravity | | ASTM D1298* | | 1.074 | 1.076 | |
| | рН | Scale 0-14 | ASTM D1287* | 9.5 | 8.57 | 8.68 | |
| | Nitrites | ppm | Alcan Test Kit* | 1500 | 1280 | 2240 | |
| | Reserve Alkalinity | Scale 0-20 | ASTM D1121* | 8.5 | 7.9 | 7.3 | |
| | Percentage Glycol | | ASTM D3321* | | 55.2 | 57.0 | |
| | Freezing Point | °C | ASTM D3321* | -40 | -44 | -47 | |
| | Carboxylate | | | | | | |
| | Silicon | ppm | ASTM D5185(m) | | 30 | 62 | |
| | Phosphorus | ppm | ASTM D5185(m) | | 858 | 942 | |
| | Boron | ppm | ASTM D5185(m) | | 273 | 340 | |
| | Molybdenum | ppm | ASTM D5185(m) | | 477 | 567 | |
| | Sodium | ppm | ASTM D5185(m) | | 1597 | 1218 | |
| | Potassium | ppm | ASTM D5185(m) | | 5225 | 2302 | |
| | Coolant Color | | Visual* | Green | Green | Green | |





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

Lab Number : 02632121 Unique Number : 5773274

: CU0023306 Received **Tested**

Diagnosed Test Package : COOL (Additional Tests: GlycolType)

: 30 Apr 2024 : 01 May 2024 - Kevin Marson

: 29 Apr 2024

600

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 CUMMINS CANADA ULC - GENERATOR DIVISION 7175 PACIFIC CIRCLE MISSISSAUGA, ON CA L5T 2A5

Contact: Elisia Johnson elisia.johnson@cummins.com T: (905)795-0050

To discuss this sample report, contact Customer Service at 1-800-268-2131. Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.

Validity of results and interpretation are based on the sample and information as supplied. F: (905)795-9252