

COOLANT REPORT

Area Kenova [Kenova] Coolant - Starboard Main Engine (Jacket) Component Coolant

CATERPILLAR ELC (35 GAL)

DIAGNOSIS

Recommendation

We recommend drain/flush system, and refill with 50/50 antifreeze water mixture. We advise that you replenish the supplemental coolant additives (SCAs) and add per manufacturer's recommendations. (Customer Sample Comment: Coolant)

Corrosion

All metal levels are normal indicating no corrosion in the cooling system.

Contaminants

Sediment present.

Coolant Condition

Carboxylate test failed. Glycol and nitrite levels are acceptable. The pH level of this fluid is within the acceptable limits.

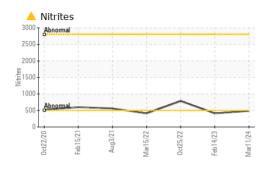
| | | - | | | | |
|------------------------|------------|-------------|-----------------|-------------------------|-------------|-------------|
| | | 0ct2020 | Feb2021 Aug2021 | Mar2022 Oct2022 Feb2023 | Mar2024 | |
| SAMPLE INFORM | ATION | method | limit/base | current | history1 | history2 |
| Sample Number | | Client Info | | WC0805210 | WC0735276 | WC0719104 |
| Sample Date | | Client Info | | 11 Mar 2024 | 14 Feb 2023 | 25 Oct 2022 |
| Machine Age | hrs | Client Info | | 40128 | 32792 | 30630 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | N/A | N/A | N/A |
| Sample Status | | | | ABNORMAL | NORMAL | NORMAL |
| PHYSICAL TEST R | ESULTS | method | limit/base | current | history1 | history2 |
| Glycol Type | | FT-IR | | | | |
| Specific Gravity | | *ASTM D1298 | | 1.046 | 1.048 | 1.052 |
| рН | Scale 0-14 | ASTM D1287 | | 7.68 | 8.04 | 8.15 |
| Nitrites | ppm | AP-053:2009 | | 488 | 412 | 788 |
| Reserve Alkalinity | Scale 0-20 | *ASTM D1121 | | | | |
| Percentage Glycol | % | ASTM D3321 | | 34.7 | 35.3 | 38.6 |
| Freezing Point | °F | ASTM D3321 | | -2 | -3 | -9 |
| Total Dissolved Solids | | | | 261.5 | 253.5 | 328.0 |
| Carboxylate | | | | fail | fail | fail |
| CORROSION INHI | IBITORS | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D6130 | 0 | 18 | 87 | 39 |
| Phosphorus | ppm | ASTM D6130 | 0 | 0 | 36 | 6 |
| Boron | ppm | ASTM D6130 | 0 | 16 | 63 | 48 |
| Molybdenum | ppm | ASTM D6130 | 950 | 309 | 762 | 758 |
| CORROSION | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D6130 | >15 | 8 | 4 | <1 |
| Aluminum | ppm | ASTM D6130 | >10 | 0 | <1 | <1 |
| Copper | ppm | ASTM D6130 | >10 | <1 | 2 | 1 |
| Lead | ppm | ASTM D6130 | >10 | <1 | 1 | <1 |
| Tin | ppm | ASTM D6130 | >10 | 0 | 1 | 0 |
| Zinc | ppm | ASTM D6130 | | 0 | 1 | <1 |
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
| Chlorine | ppm | ASTM D6130 | | 8 | 65 | 21 |
| CARRIER SALTS | | method | limit/base | current | history1 | history2 |
| Sodium | ppm | ASTM D6130 | | 2771 | 5335 | 5495 |
| Potassium | ppm | ASTM D6130 | | 13 | 209 | 260 |
| SCALE POTENTI | AL | method | limit/base | current | history1 | history2 |
| Calcium | ppm | ASTM D6130 | | 5 | 18 | 9 |
| Magnesium | ppm | ASTM D6130 | | 3 | 7 | 4 |
| 0 | 1.1- | | | - | | |

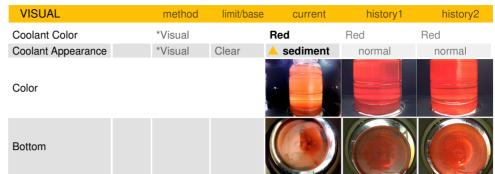
Sample Rating Trend

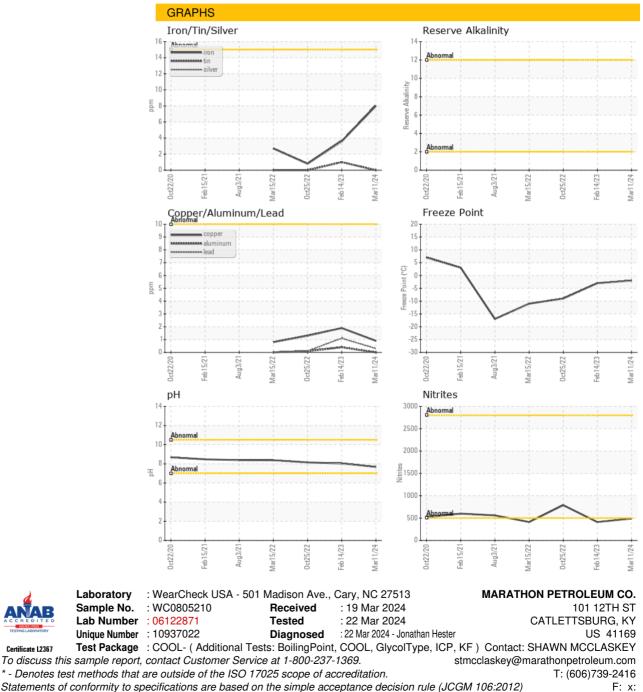
APPEARANCE



COOLANT REPORT







Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Certificate L2367

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