



POWER SYSTEMS
SYSTÈMES DE PUISSANCE

OIL ANALYSIS REPORT

| | |
|-----------------|---------------|
| WEAR | NORMAL |
| CONTAMINATION | NORMAL |
| FLUID CONDITION | NORMAL |

Area

[287008]

Machine Id

MTU 5262002116

Component

Diesel Engine

Fluid

SHELL ROTELLA T 15W40 (--- GAL)

RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | WA0020839 | WA0018991 | WA0016593 |
| Sample Date | | Client Info | | 07 May 2024 | 29 Nov 2022 | 06 Jul 2021 |
| Machine Age | hrs | Client Info | | 577 | 493 | 352 |
| Oil Age | hrs | Client Info | | 40 | 130 | 10 |
| Filter Age | hrs | Client Info | | 40 | 130 | 10 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

Metal levels are typical for a new component breaking in.

| | | | | | | |
|----------|-----|---------------|------|--------------|----|----|
| Iron | ppm | ASTM D5185(m) | >100 | 2 | 4 | 2 |
| Chromium | ppm | ASTM D5185(m) | >20 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185(m) | >4 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185(m) | | 0 | <1 | 0 |
| Silver | ppm | ASTM D5185(m) | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185(m) | >20 | <1 | 1 | <1 |
| Lead | ppm | ASTM D5185(m) | >40 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185(m) | >330 | 2 | 2 | 1 |
| Tin | ppm | ASTM D5185(m) | >15 | 0 | 0 | <1 |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |

CONTAMINATION

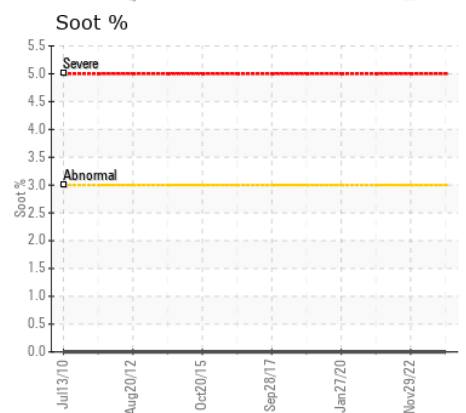
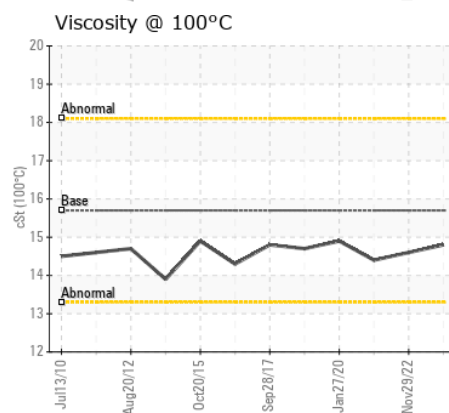
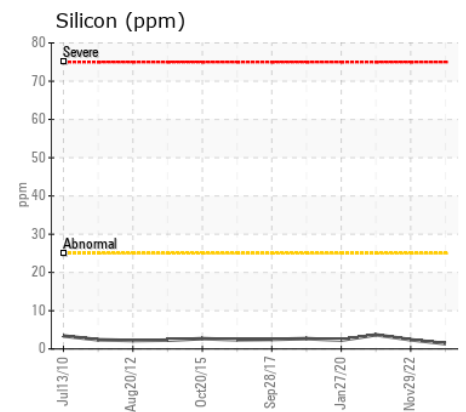
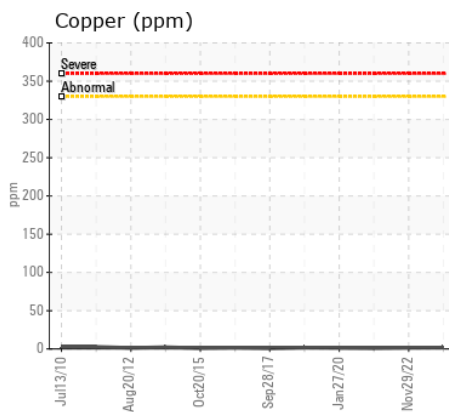
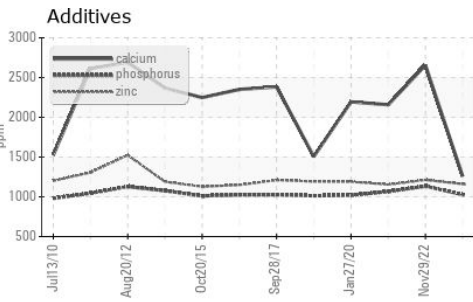
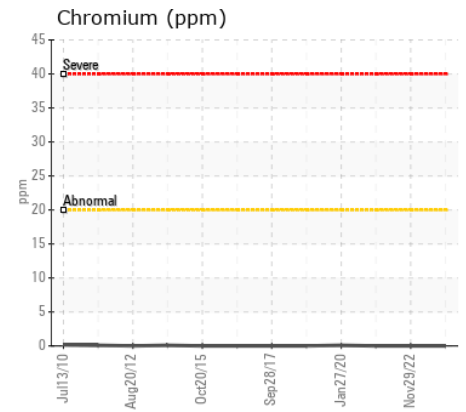
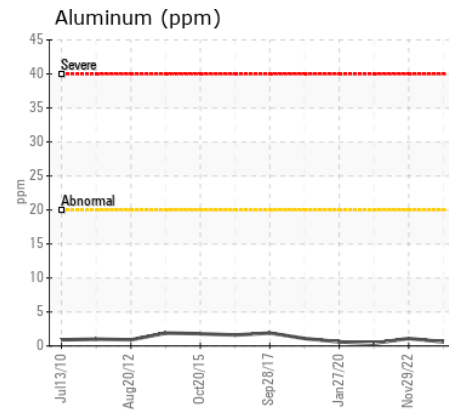
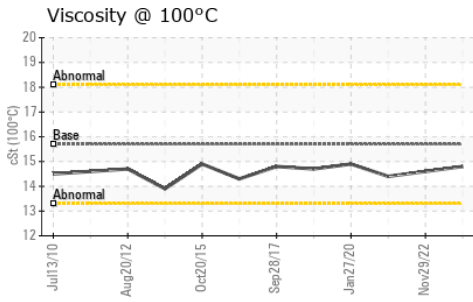
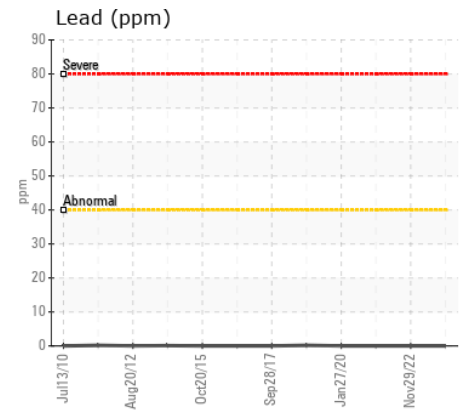
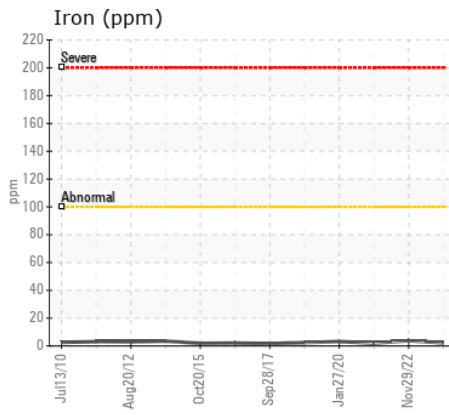
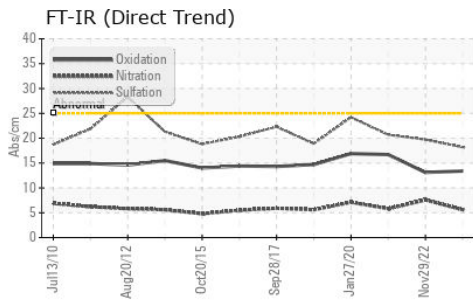
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|---------------|------|----------------|------|------|
| Silicon | ppm | ASTM D5185(m) | >25 | 1 | 2 | 4 |
| Potassium | ppm | ASTM D5185(m) | >20 | <1 | 2 | 8 |
| Fuel | | WC Method | >5 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | 0.0 |
| Soot % | % | ASTM D7844* | >3 | 0 | 0 | 0 |
| Nitration | Abs/cm | ASTM D7624* | >20 | 5.6 | 7.6 | 5.8 |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | 18.2 | 19.7 | 20.7 |
| Emulsified Water | scalar | Visual* | >0.2 | NEG | NEG | NEG |

FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

| | | | | | | |
|--------------|----------|---------------|------|-------------|------|------|
| Sodium | ppm | ASTM D5185(m) | | 1 | 3 | 2 |
| Boron | ppm | ASTM D5185(m) | 35 | 5 | 35 | 194 |
| Barium | ppm | ASTM D5185(m) | 0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | 0 | 53 | 13 | 1 |
| Manganese | ppm | ASTM D5185(m) | 0 | 0 | <1 | 0 |
| Magnesium | ppm | ASTM D5185(m) | 10 | 867 | 145 | 23 |
| Calcium | ppm | ASTM D5185(m) | 2340 | 1260 | 2655 | 2158 |
| Phosphorus | ppm | ASTM D5185(m) | 1110 | 1028 | 1134 | 1067 |
| Zinc | ppm | ASTM D5185(m) | 1210 | 1161 | 1212 | 1154 |
| Sulfur | ppm | ASTM D5185(m) | 3890 | 2702 | 3656 | 3149 |
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | 13.4 | 13.1 | 16.7 |
| Visc @ 100°C | cSt | ASTM D7279(m) | 15.7 | 14.8 | 14.6 | 14.4 |



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WA0020839 **Received** : 14 May 2024
Lab Number : 02635210 **Tested** : 14 May 2024
Unique Number : 5776363 **Diagnosed** : 14 May 2024 - Wes Davis
Test Package : MOB 1

Wajax Power Systems
 70 Raddall Avenue
 Dartmouth, NS
 CA B3B 1T7
 Contact: Danelle Hoffman
 dhoffman@wajax.com
 T: (902)468-6200
 F: (902)468-3325

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.