



Machine Id
MACK 411-7500
Component
Diesel Engine
Fluid
PETRO CANADA DURON HP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | PC0043103 | PC0073085 | PC0043106 |
| Sample Date | | Client Info | | 08 Dec 2023 | 18 Oct 2023 | 25 Aug 2023 |
| Machine Age | hrs | Client Info | | 18311 | 18055 | 252 |
| Oil Age | hrs | Client Info | | 256 | 240 | 252 |
| Filter Age | hrs | Client Info | | 256 | 240 | 252 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|----------|-----|---------------|------|--------------|----|----|
| Iron | ppm | ASTM D5185(m) | >90 | 2 | 3 | 3 |
| Chromium | ppm | ASTM D5185(m) | >20 | <1 | <1 | <1 |
| Nickel | ppm | ASTM D5185(m) | >2 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185(m) | >2 | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) | >2 | 0 | <1 | 0 |
| Aluminum | ppm | ASTM D5185(m) | >20 | 1 | 1 | <1 |
| Lead | ppm | ASTM D5185(m) | >40 | <1 | 1 | 1 |
| Copper | ppm | ASTM D5185(m) | >330 | 1 | <1 | <1 |
| Tin | ppm | ASTM D5185(m) | >15 | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |

CONTAMINATION

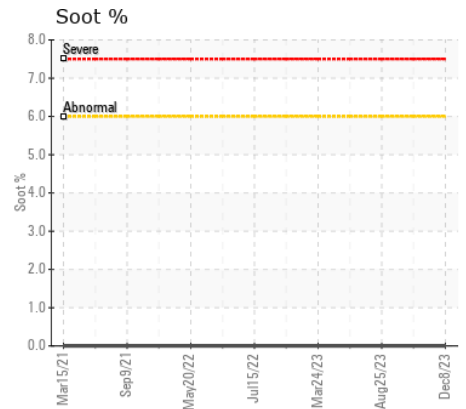
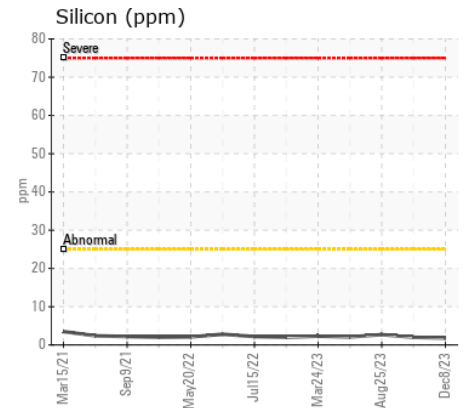
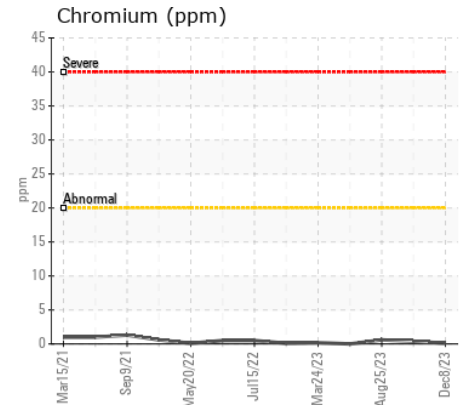
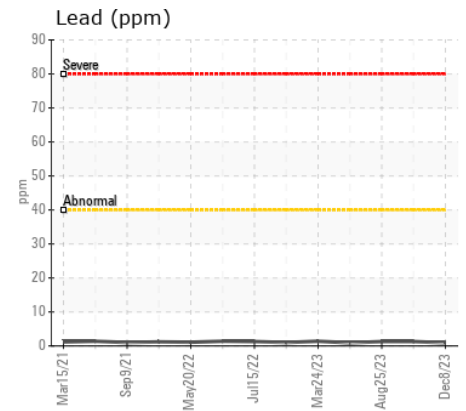
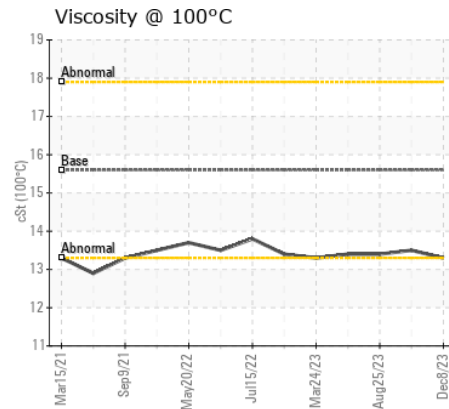
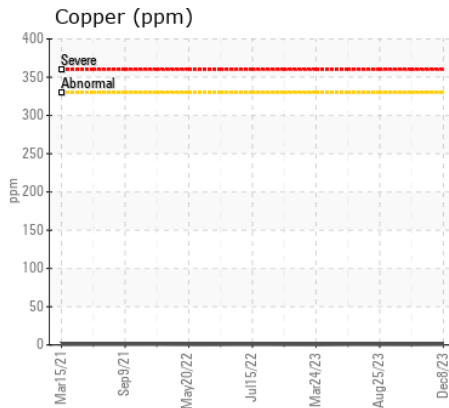
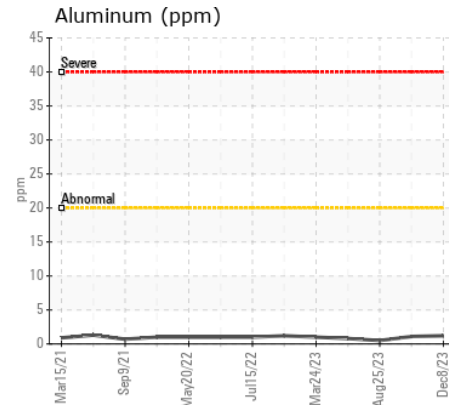
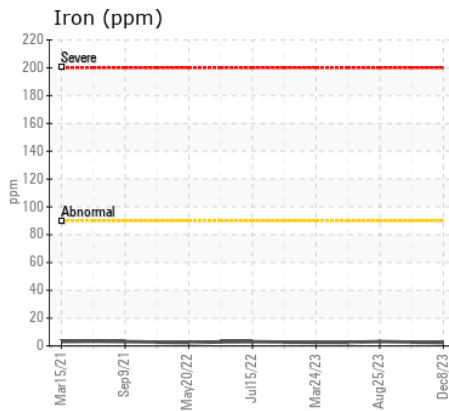
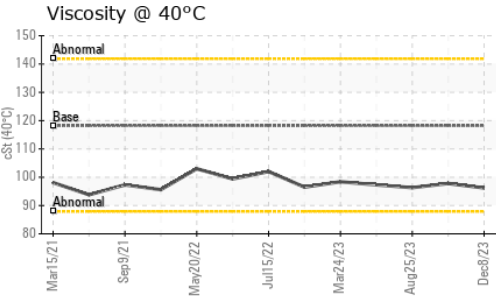
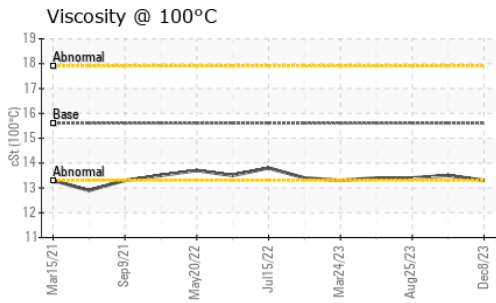
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|---------------|------|----------------|------|------|
| Silicon | ppm | ASTM D5185(m) | >25 | 2 | 2 | 3 |
| Potassium | ppm | ASTM D5185(m) | >20 | <1 | 0 | <1 |
| Fuel | | WC Method | >3.0 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | ASTM D7844* | >6 | 0 | 0 | 0 |
| Nitration | Abs/cm | ASTM D7624* | >20 | 5.3 | 5.4 | 5.7 |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | 17.9 | 18.3 | 19.4 |
| Emulsified Water | scalar | Visual* | >0.2 | NEG | NEG | NEG |

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

| | | | | | | |
|----------------------|----------|---------------|-------|-------------|------|------|
| Sodium | ppm | ASTM D5185(m) | | 2 | 3 | 3 |
| Boron | ppm | ASTM D5185(m) | 0 | 1 | 2 | 2 |
| Barium | ppm | ASTM D5185(m) | 0 | 0 | <1 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | 60 | 57 | 60 | 59 |
| Manganese | ppm | ASTM D5185(m) | 0 | 0 | 0 | <1 |
| Magnesium | ppm | ASTM D5185(m) | 1010 | 949 | 989 | 983 |
| Calcium | ppm | ASTM D5185(m) | 1070 | 1033 | 1052 | 1014 |
| Phosphorus | ppm | ASTM D5185(m) | 1150 | 993 | 1034 | 1076 |
| Zinc | ppm | ASTM D5185(m) | 1270 | 1184 | 1197 | 1166 |
| Sulfur | ppm | ASTM D5185(m) | 2060 | 2736 | 2574 | 2562 |
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | 13.2 | 13.9 | 13.9 |
| Visc @ 40°C | cSt | ASTM D7279(m) | 118.2 | 96.2 | 97.8 | 96.3 |
| Visc @ 100°C | cSt | ASTM D7279(m) | 15.6 | 13.3 | 13.5 | 13.4 |
| Viscosity Index (VI) | Scale | ASTM D2270* | 139 | 137 | 138 | 138 |



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0043103 **Received** : 08 Jan 2024
Lab Number : 02606952 **Diagnosed** : 08 Jan 2024
Unique Number : 5708038 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: KV40, VI)

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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.