

Machine Id
RST9963
Component
Diesel Engine
Fluid
PETRO CANADA DURON UHP 5W40 (8 LTR)

RECOMMENDATION

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

WEAR

All component wear rates are normal.

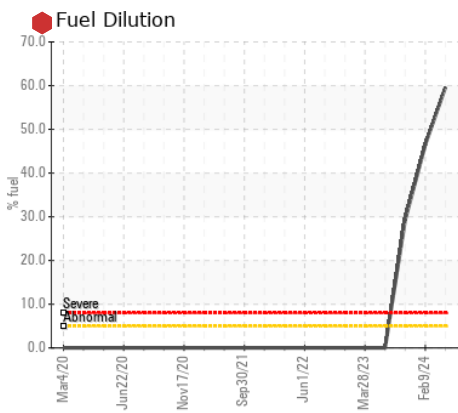
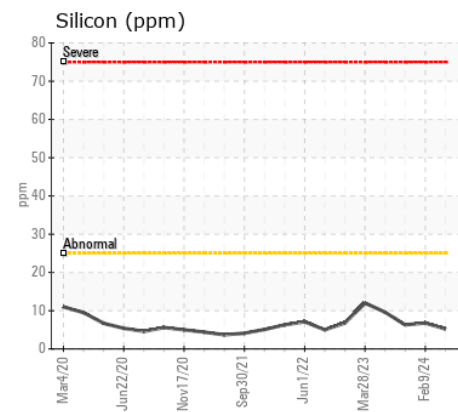
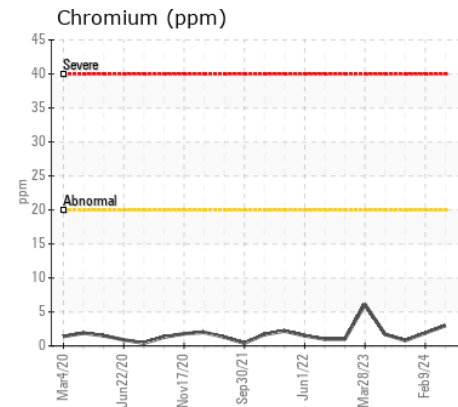
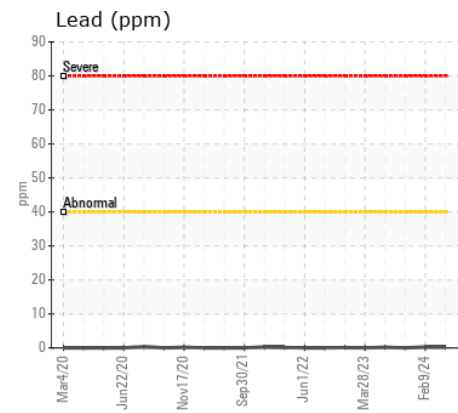
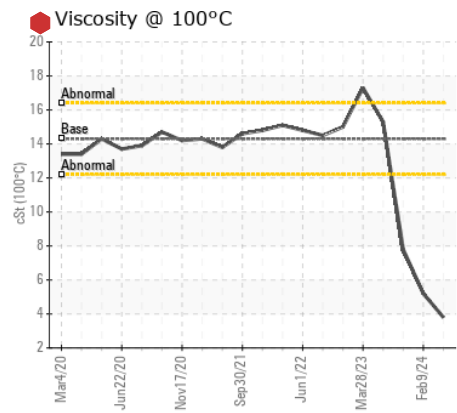
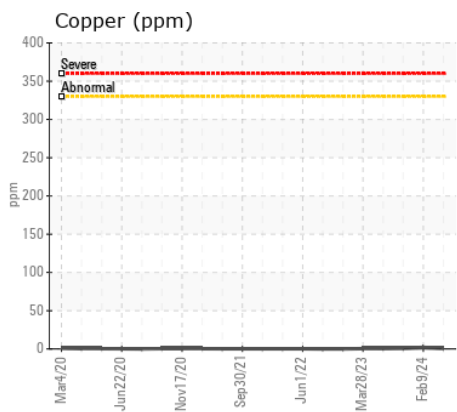
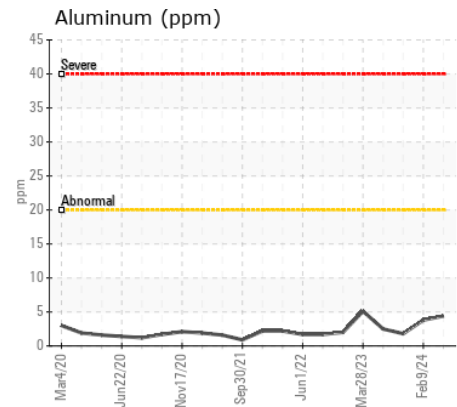
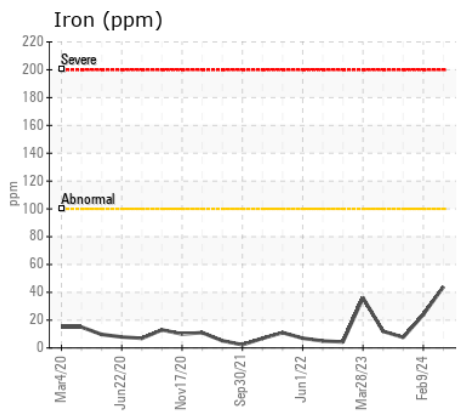
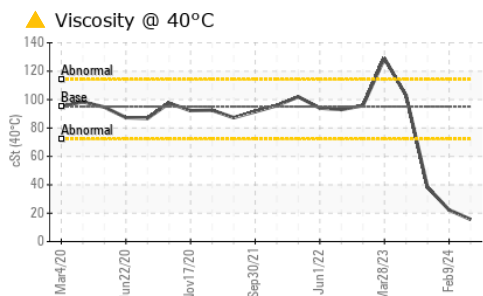
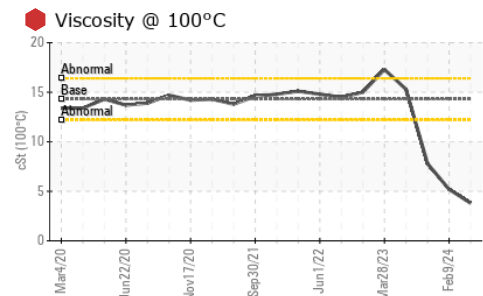
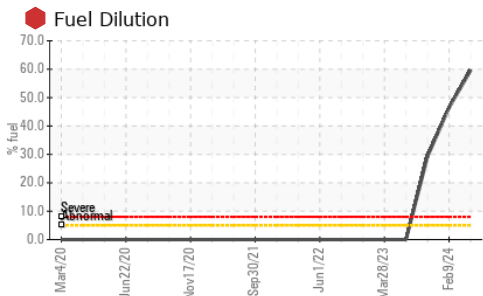
CONTAMINATION

There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

FLUID CONDITION

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------------|----------|---------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | PC0078317 | PC0078299 | PC0082050 |
| Sample Date | | Client Info | | 14 Feb 2024 | 09 Feb 2024 | 30 Jan 2024 |
| Machine Age | hrs | Client Info | | 6249 | 9963 | 6023 |
| Oil Age | hrs | Client Info | | 0 | 0 | 250 |
| Filter Age | hrs | Client Info | | 0 | 0 | 250 |
| Oil Changed | | Client Info | | N/A | Not Chngd | Changed |
| Filter Changed | | Client Info | | N/A | Not Chngd | Changed |
| Sample Status | | | | SEVERE | SEVERE | SEVERE |
| Iron | ppm | ASTM D5185(m) | >100 | 44 | 24 | 8 |
| Chromium | ppm | ASTM D5185(m) | >20 | 3 | 2 | <1 |
| Nickel | ppm | ASTM D5185(m) | >4 | 0 | <1 | 0 |
| Titanium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185(m) | >20 | 4 | 4 | 2 |
| Lead | ppm | ASTM D5185(m) | >40 | <1 | <1 | 0 |
| Copper | ppm | ASTM D5185(m) | >330 | <1 | 2 | <1 |
| Tin | ppm | ASTM D5185(m) | >15 | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| White Metal | scalar | Visual* | NONE | VLITE | VLITE | --- |
| Yellow Metal | scalar | Visual* | NONE | NONE | NONE | --- |
| Silicon | ppm | ASTM D5185(m) | >25 | 5 | 7 | 6 |
| Potassium | ppm | ASTM D5185(m) | >20 | <1 | <1 | <1 |
| Fuel | % | ASTM D7593* | >5 | 59.6 | 46.5 | 29.3 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | ASTM D7844* | >3 | 0.1 | 0.1 | 0 |
| Nitration | Abs/cm | ASTM D7624* | >20 | 9.0 | 8.6 | 7.7 |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | 17.1 | 17.9 | 18.1 |
| Silt | scalar | Visual* | NONE | NONE | NONE | --- |
| Debris | scalar | Visual* | NONE | NONE | NONE | --- |
| Sand/Dirt | scalar | Visual* | NONE | NONE | NONE | --- |
| Appearance | scalar | Visual* | NORML | NORML | NORML | --- |
| Odor | scalar | Visual* | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | Visual* | >0.2 | NEG | NEG | NEG |
| Sodium | ppm | ASTM D5185(m) | | 2 | 2 | 2 |
| Boron | ppm | ASTM D5185(m) | 65 | 17 | 24 | 35 |
| Barium | ppm | ASTM D5185(m) | 0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | 65 | 23 | 30 | 37 |
| Manganese | ppm | ASTM D5185(m) | 0 | 0 | 0 | 0 |
| Magnesium | ppm | ASTM D5185(m) | 1160 | 450 | 564 | 724 |
| Calcium | ppm | ASTM D5185(m) | 820 | 334 | 415 | 539 |
| Phosphorus | ppm | ASTM D5185(m) | 1160 | 394 | 510 | 673 |
| Zinc | ppm | ASTM D5185(m) | 1260 | 473 | 605 | 772 |
| Sulfur | ppm | ASTM D5185(m) | 3000 | 1009 | 1409 | 1928 |
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | 15.3 | 15.4 | 15.2 |
| Visc @ 40°C | cSt | ASTM D7279(m) | 95.1 | 15.6 | 22.3 | 38.3 |
| Visc @ 100°C | cSt | ASTM D7279(m) | 14.3 | 3.8 | 5.2 | 7.8 |
| Viscosity Index (VI) | Scale | ASTM D2270* | 169 | 138 | 176 | 179 |



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0078317
Lab Number : 02617405
Unique Number : 5734515
Test Package : MOB 1 (Additional Tests: KV40, PercentFuel, VI, Visual)

Green Infrastructure and Partners Inc (GIPI) - 286 - Shoring & Foundations
 151 Ram Forest Rd,
 Stouffville, ON
 CA L4A 2G8
 Contact: Shannon Abbott
 sabbott@gipi.com
 T: (905)750-5900
 F:

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.