

Area
[1305042]
 Machine Id
114001
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | GFL0118549 | GFL0110663 | GFL0088982 |
| Sample Date | | Client Info | | 03 Jul 2024 | 29 Feb 2024 | 22 Aug 2023 |
| Machine Age | hrs | Client Info | | 3842 | 3379 | 2658 |
| Oil Age | hrs | Client Info | | 600 | 0 | 0 |
| Filter Age | hrs | Client Info | | 600 | 0 | 0 |
| Oil Changed | | Client Info | | Changed | Changed | N/A |
| Filter Changed | | Client Info | | Changed | Changed | N/A |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|----------|-----|---------------|------|--------------|----|----|
| Iron | ppm | ASTM D5185(m) | >165 | 8 | 4 | 7 |
| Chromium | ppm | ASTM D5185(m) | >5 | <1 | <1 | <1 |
| Nickel | ppm | ASTM D5185(m) | >4 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185(m) | >2 | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) | >2 | <1 | 0 | 0 |
| Aluminum | ppm | ASTM D5185(m) | >20 | 2 | 2 | 3 |
| Lead | ppm | ASTM D5185(m) | >150 | 0 | 0 | <1 |
| Copper | ppm | ASTM D5185(m) | >90 | <1 | <1 | 1 |
| Tin | ppm | ASTM D5185(m) | >5 | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |

CONTAMINATION

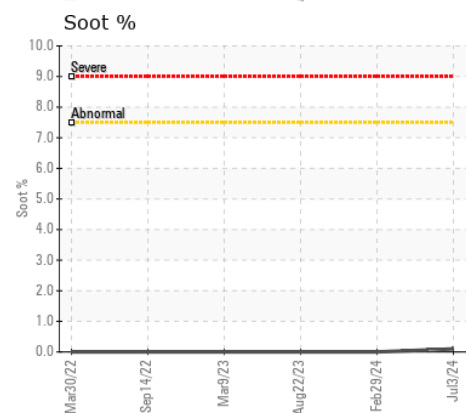
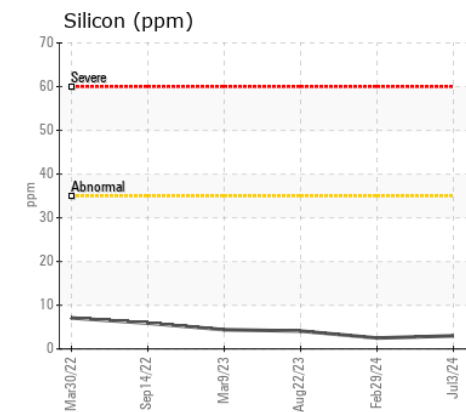
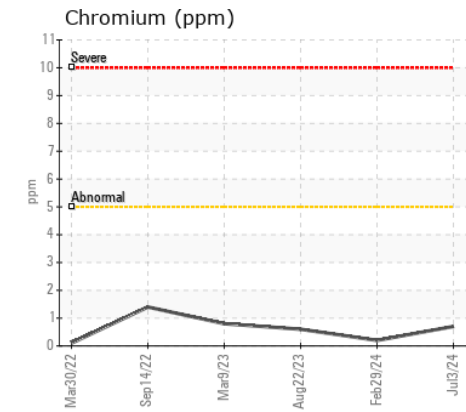
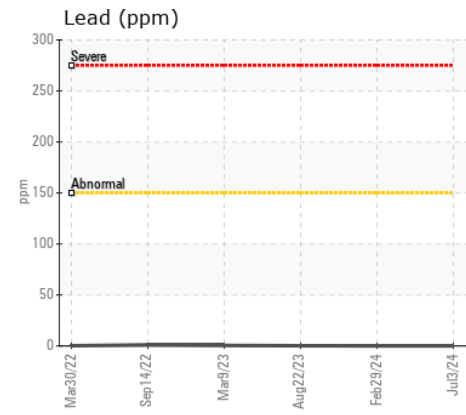
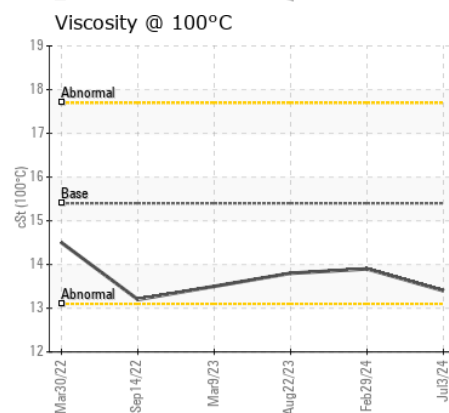
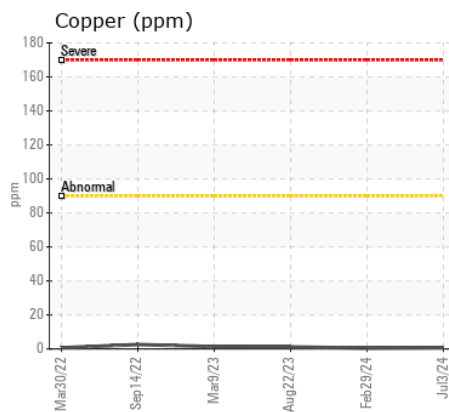
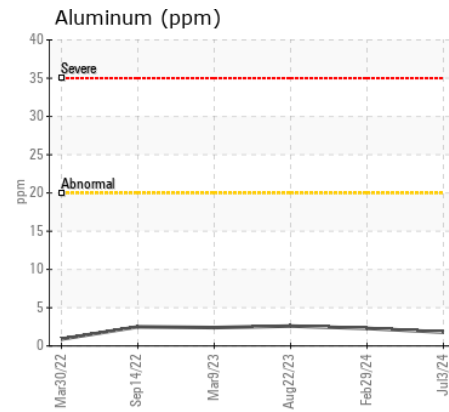
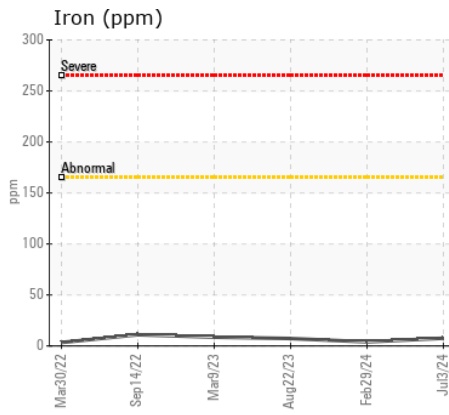
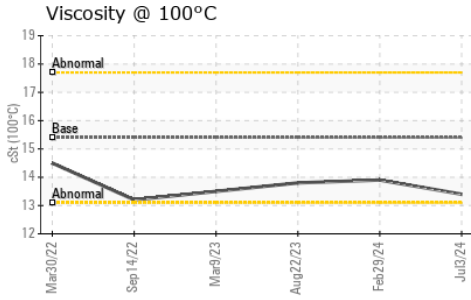
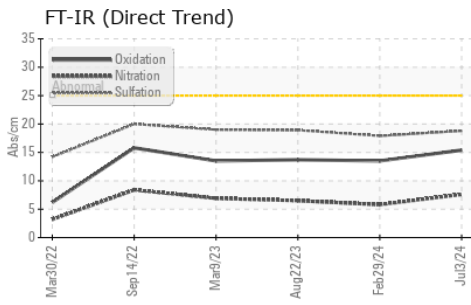
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|---------------|------|----------------|------|------|
| Silicon | ppm | ASTM D5185(m) | >35 | 3 | 2 | 4 |
| Potassium | ppm | ASTM D5185(m) | >20 | 4 | 5 | 10 |
| 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* | >7.5 | 0.1 | 0 | 0 |
| Nitration | Abs/cm | ASTM D7624* | >20 | 7.6 | 5.8 | 6.5 |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | 18.8 | 17.9 | 18.9 |
| 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) | | 4 | 2 | 4 |
| Boron | ppm | ASTM D5185(m) | 0 | 8 | 2 | 6 |
| Barium | ppm | ASTM D5185(m) | 0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | 60 | 57 | 58 | 59 |
| Manganese | ppm | ASTM D5185(m) | 0 | <1 | 0 | <1 |
| Magnesium | ppm | ASTM D5185(m) | 1010 | 912 | 963 | 973 |
| Calcium | ppm | ASTM D5185(m) | 1070 | 1105 | 1039 | 1026 |
| Phosphorus | ppm | ASTM D5185(m) | 1150 | 969 | 1032 | 1066 |
| Zinc | ppm | ASTM D5185(m) | 1270 | 1172 | 1179 | 1181 |
| Sulfur | ppm | ASTM D5185(m) | 2060 | 2505 | 2826 | 2651 |
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | 15.4 | 13.5 | 13.7 |
| Visc @ 100°C | cSt | ASTM D7279(m) | 15.4 | 13.4 | 13.9 | 13.8 |



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0118549
Lab Number : 02645729
Unique Number : 5803268
Test Package : MOB 1

GFL Environmental - 207 - Pickering SW
 1034 TOY AVENUE, PICKERING YARD
 PICKERING, ON
 CA L1W 3P1
 Contact: Ian Patton
 ipatton@gflenv.com
 T: (905)831-6297
 F: (905)426-3577

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.