



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



Area
(00336H8)
Machine Id
2381
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (12 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | GFL0118207 | GFL0109126 | GFL0098363 |
| Sample Date | | Client Info | | 25 Jun 2024 | 28 Mar 2024 | 29 Dec 2023 |
| Machine Age | hrs | Client Info | | 562 | 475 | 474 |
| Oil Age | hrs | Client Info | | 150 | 1200 | 247 |
| Filter Age | hrs | Client Info | | 0 | 1200 | 247 |
| Oil Changed | | Client Info | | Not Changd | Changed | Not Changd |
| Filter Changed | | Client Info | | Not Changd | Changed | Not Changd |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

Metal levels are typical for a new component breaking in.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >120 | 7 | 14 | 11 |
| Chromium | ppm | ASTM D5185m | >20 | <1 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >5 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | >2 | <1 | 0 | <1 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | <1 | <1 | 2 |
| Lead | ppm | ASTM D5185m | >40 | <1 | 1 | 2 |
| Copper | ppm | ASTM D5185m | >330 | 1 | 3 | 4 |
| Tin | ppm | ASTM D5185m | >15 | <1 | 0 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

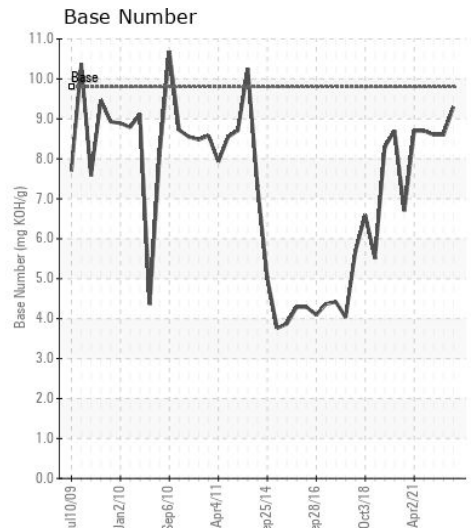
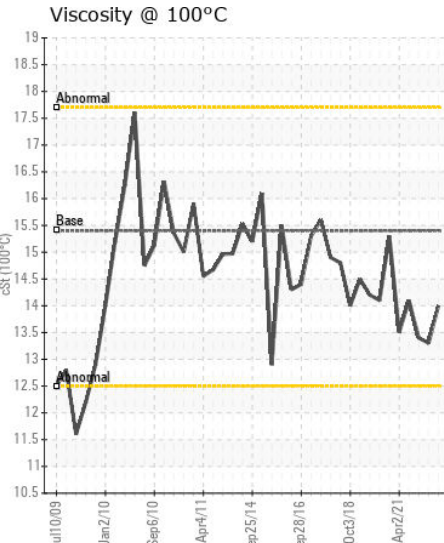
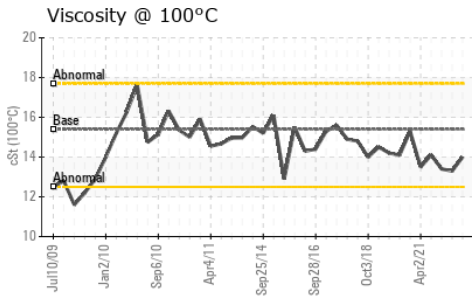
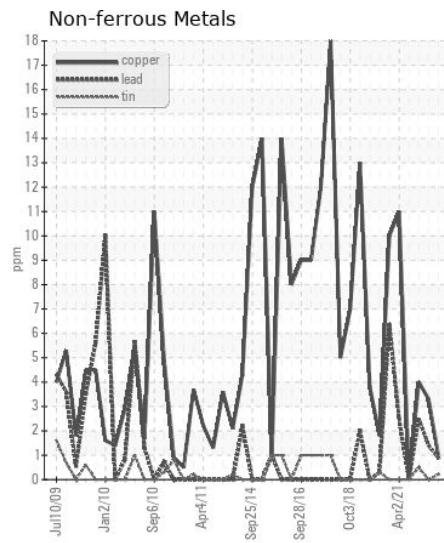
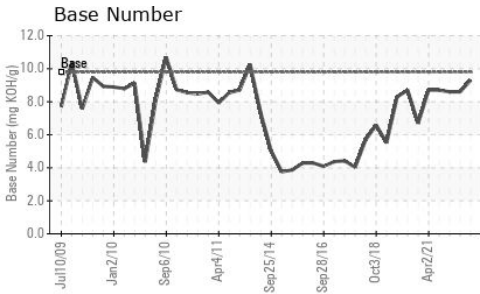
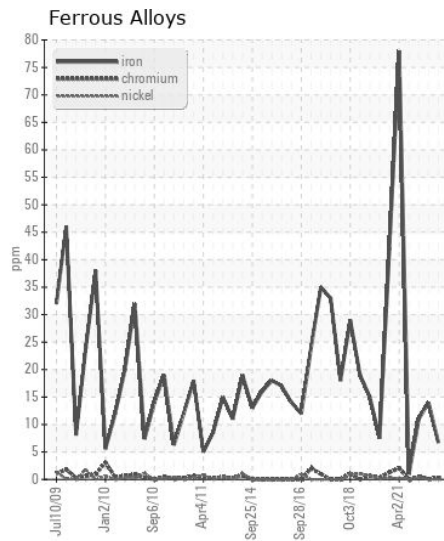
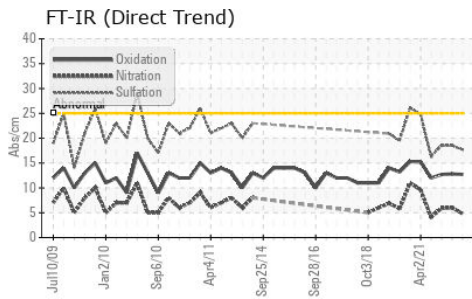
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >25 | 3 | 3 | 2 |
| Potassium | ppm | ASTM D5185m | >20 | 0 | <1 | 3 |
| 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 | >4 | 0.4 | 1 | 1 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 4.8 | 6.0 | 5.9 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 17.7 | 18.5 | 18.5 |
| Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.2 | NEG | NEG | NEG |

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| | | | | | | |
|------------------|----------|-------------|------|--------------|------|------|
| Sodium | ppm | ASTM D5185m | | <1 | 1 | 0 |
| Boron | ppm | ASTM D5185m | 0 | 2 | <1 | 1 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 | 8 |
| Molybdenum | ppm | ASTM D5185m | 60 | 57 | 59 | 55 |
| Manganese | ppm | ASTM D5185m | 0 | <1 | 0 | <1 |
| Magnesium | ppm | ASTM D5185m | 1010 | 1032 | 955 | 885 |
| Calcium | ppm | ASTM D5185m | 1070 | 1176 | 1051 | 1000 |
| Phosphorus | ppm | ASTM D5185m | 1150 | 1137 | 1052 | 915 |
| Zinc | ppm | ASTM D5185m | 1270 | 1379 | 1256 | 1125 |
| Sulfur | ppm | ASTM D5185m | 2060 | 4119 | 3620 | 3110 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 12.7 | 12.8 | 12.7 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 9.8 | 9.3 | 8.6 | 8.6 |
| Visc @ 100°C | cSt | ASTM D445 | 15.4 | 14.0 | 13.3 | 13.4 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0118207
Lab Number : 06224334
Unique Number : 11102531
Test Package : FLEET
Received : 01 Jul 2024
Tested : 02 Jul 2024
Diagnosed : 02 Jul 2024 - Wes Davis

GFL Environmental - 822 - Springfield Hauling
 822 West Bennett Street
 Springfield, MO
 US 65807
 Contact: Dennis Moore
 dennis.moore@gflenv.com
 T: (417)403-3641
 F:

To discuss this sample report, contact Customer Service at 1-800-237-1369.
 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)