



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



Machine Id
714028
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (12 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. (Customer Sample Comment: 1st oil service, possibly 5W20 break in oil)

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|----------|----------|
| Sample Number | | Client Info | | GFL0116300 | --- | --- |
| Sample Date | | Client Info | | 02 Jul 2024 | --- | --- |
| Machine Age | hrs | Client Info | | 502 | --- | --- |
| Oil Age | hrs | Client Info | | 502 | --- | --- |
| Filter Age | hrs | Client Info | | 502 | --- | --- |
| Oil Changed | | Client Info | | Changed | --- | --- |
| Filter Changed | | Client Info | | Changed | --- | --- |
| Sample Status | | | | NORMAL | --- | --- |

WEAR

Metal levels are typical for a new component breaking in.

| | | | | | | |
|--------------|--------|-------------|------|--------------|-----|-----|
| Iron | ppm | ASTM D5185m | >120 | 47 | --- | --- |
| Chromium | ppm | ASTM D5185m | >20 | 1 | --- | --- |
| Nickel | ppm | ASTM D5185m | >5 | 3 | --- | --- |
| Titanium | ppm | ASTM D5185m | >2 | 0 | --- | --- |
| Silver | ppm | ASTM D5185m | >2 | <1 | --- | --- |
| Aluminum | ppm | ASTM D5185m | >20 | 6 | --- | --- |
| Lead | ppm | ASTM D5185m | >40 | 1 | --- | --- |
| Copper | ppm | ASTM D5185m | >330 | 158 | --- | --- |
| Tin | ppm | ASTM D5185m | >15 | 2 | --- | --- |
| Vanadium | ppm | ASTM D5185m | | 0 | --- | --- |
| White Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- | --- |

CONTAMINATION

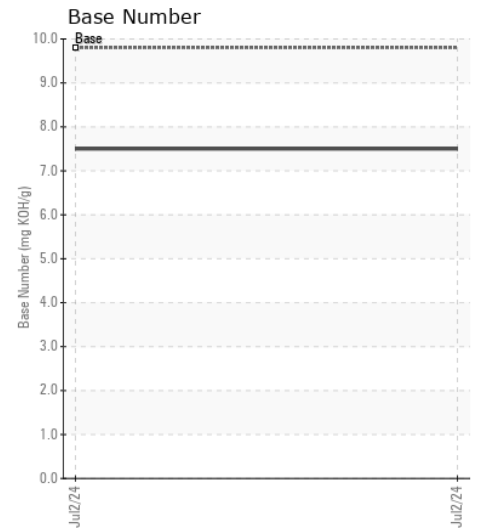
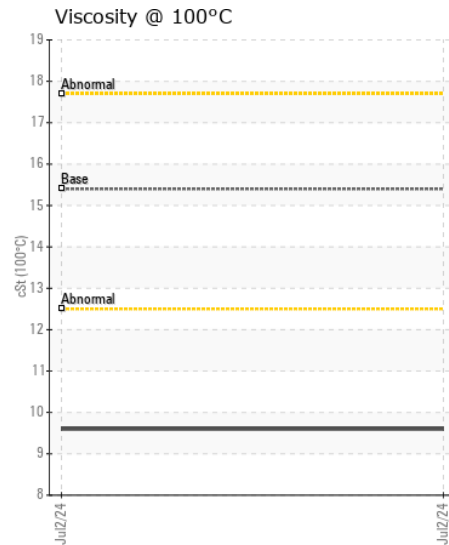
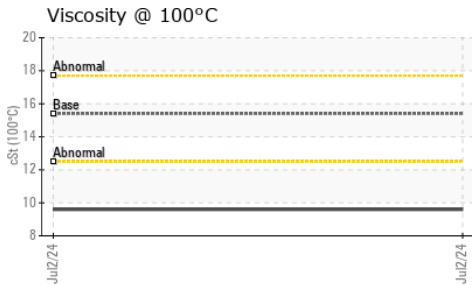
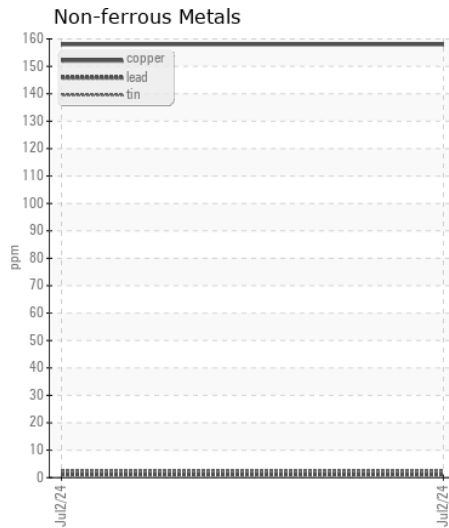
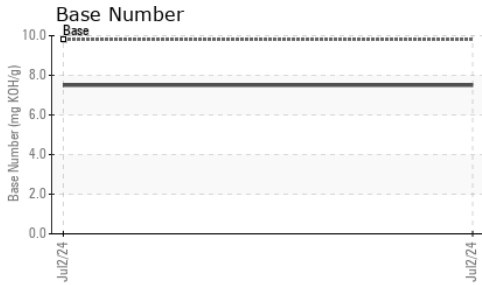
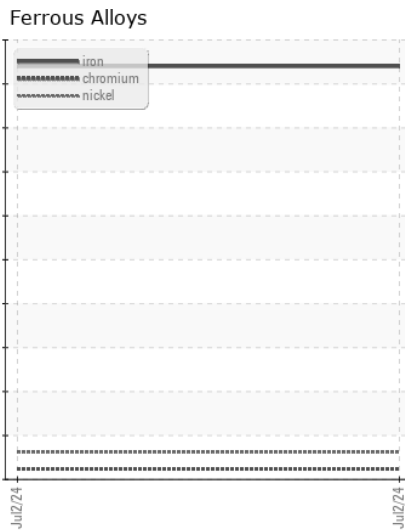
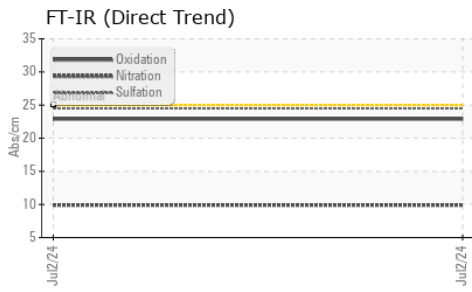
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-----|-----|
| Silicon | ppm | ASTM D5185m | >25 | 71 | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | 7 | --- | --- |
| Fuel | % | ASTM D3524 | >3.0 | <1.0 | --- | --- |
| Water | | WC Method | >0.2 | NEG | --- | --- |
| Glycol | | WC Method | | NEG | --- | --- |
| Soot % | % | *ASTM D7844 | >4 | 0.5 | --- | --- |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 9.9 | --- | --- |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 24.5 | --- | --- |
| Silt | scalar | *Visual | NONE | NONE | --- | --- |
| Debris | scalar | *Visual | NONE | NONE | --- | --- |
| Sand/Dirt | scalar | *Visual | NONE | NONE | --- | --- |
| Appearance | scalar | *Visual | NORML | NORML | --- | --- |
| Odor | scalar | *Visual | NORML | NORML | --- | --- |
| Emulsified Water | scalar | *Visual | >0.2 | NEG | --- | --- |

FLUID CONDITION

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

| | | | | | | |
|------------------|----------|-------------|------|--------------|-----|-----|
| Sodium | ppm | ASTM D5185m | | 3 | --- | --- |
| Boron | ppm | ASTM D5185m | 0 | 199 | --- | --- |
| Barium | ppm | ASTM D5185m | 0 | <1 | --- | --- |
| Molybdenum | ppm | ASTM D5185m | 60 | 121 | --- | --- |
| Manganese | ppm | ASTM D5185m | 0 | 6 | --- | --- |
| Magnesium | ppm | ASTM D5185m | 1010 | 668 | --- | --- |
| Calcium | ppm | ASTM D5185m | 1070 | 1517 | --- | --- |
| Phosphorus | ppm | ASTM D5185m | 1150 | 683 | --- | --- |
| Zinc | ppm | ASTM D5185m | 1270 | 786 | --- | --- |
| Sulfur | ppm | ASTM D5185m | 2060 | 2468 | --- | --- |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 22.9 | --- | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 9.8 | 7.5 | --- | --- |
| Visc @ 100°C | cSt | ASTM D445 | 15.4 | 9.6 | --- | --- |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0116300 **Received** : 05 Jul 2024
Lab Number : 06229551 **Tested** : 09 Jul 2024
Unique Number : 11113044 **Diagnosed** : 09 Jul 2024 - Jonathan Hester
Test Package : FLEET (Additional Tests: FuelDilution)

GFL Environmental - 625 - Harrison Hauling
 2480 S Clare Ave
 Clare, MI
 US 48617
 Contact: Glenda Standen
 gstanden@gflenv.com

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)

T:
F: