



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



Area
(8AA0HYN)
Machine Id
427062-402074
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 | | GFL0115798 | GFL0115830 | GFL0113698 |
| Sample Date | | Client Info | | 07 Jun 2024 | 01 May 2024 | 04 Mar 2024 |
| Machine Age | hrs | Client Info | | 30515 | 30419 | 30265 |
| Oil Age | hrs | Client Info | | 1307 | 1211 | 1057 |
| Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Not Changd | Not Changd | N/A |
| Filter Changed | | Client Info | | N/A | N/A | N/A |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

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

CONTAMINATION

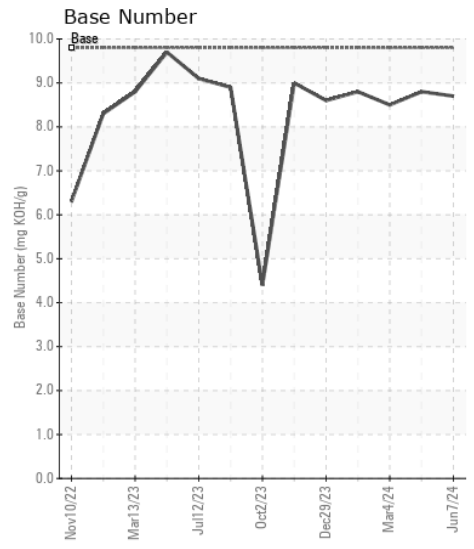
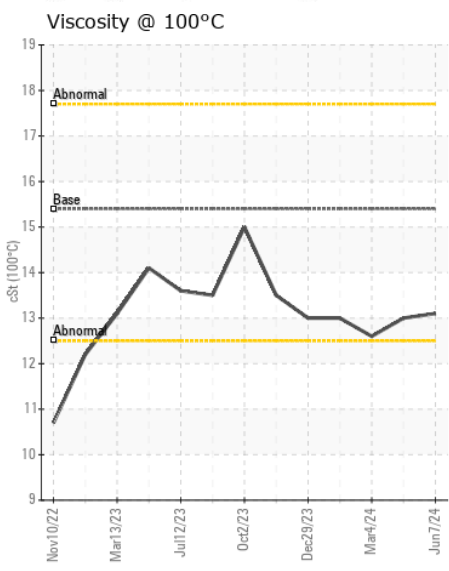
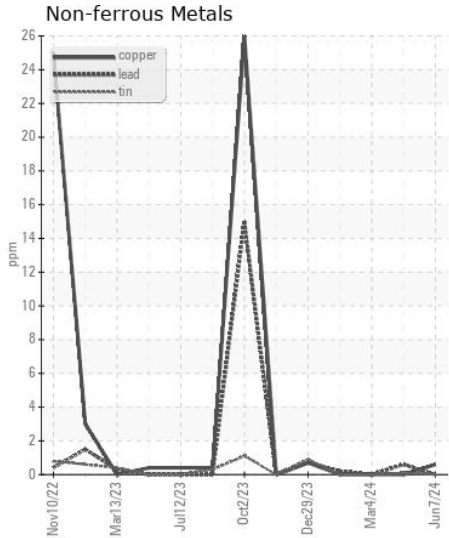
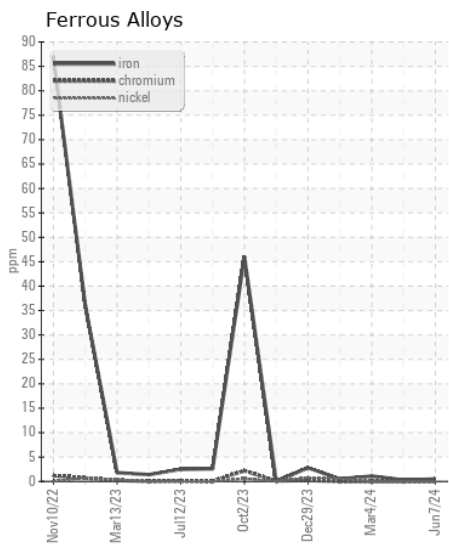
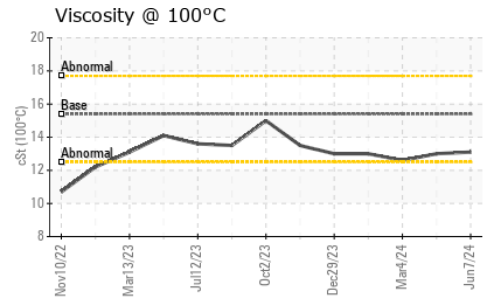
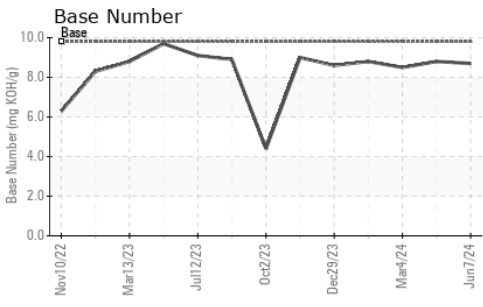
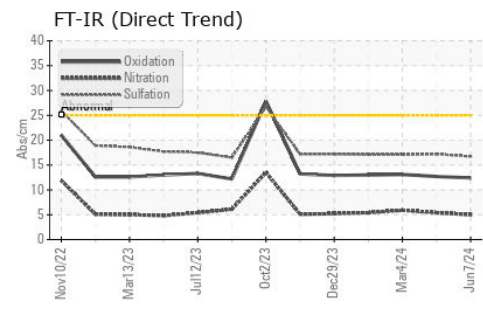
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >25 | 2 | 3 | 1 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | 3 | 0 |
| 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 | 0.1 | 0.1 | 0.2 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 5.0 | 5.4 | 5.9 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 16.7 | 17.2 | 17.1 |
| 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 | | 2 | 1 | 1 |
| Boron | ppm | ASTM D5185m | 0 | 9 | 8 | 4 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 60 | 62 | 60 | 62 |
| Manganese | ppm | ASTM D5185m | 0 | <1 | <1 | 0 |
| Magnesium | ppm | ASTM D5185m | 1010 | 917 | 900 | 869 |
| Calcium | ppm | ASTM D5185m | 1070 | 1066 | 1064 | 988 |
| Phosphorus | ppm | ASTM D5185m | 1150 | 1073 | 1026 | 856 |
| Zinc | ppm | ASTM D5185m | 1270 | 1226 | 1199 | 1074 |
| Sulfur | ppm | ASTM D5185m | 2060 | 3635 | 3507 | 2763 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 12.4 | 12.7 | 13.1 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 9.8 | 8.7 | 8.8 | 8.5 |
| Visc @ 100°C | cSt | ASTM D445 | 15.4 | 13.1 | 13.0 | 12.6 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0115798 **Received** : 17 Jun 2024
Lab Number : 06211368 **Tested** : 19 Jun 2024
Unique Number : 11084232 **Diagnosed** : 19 Jun 2024 - Wes Davis
Test Package : FLEET

GFL Environmental - 868 - Childersburg Fines Hauling (Alpine)
 13737 Plant Rd
 Childersburg, AL
 US 35044
 Contact: JONATHAN WILLIAMS
 jonathan.williams@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)