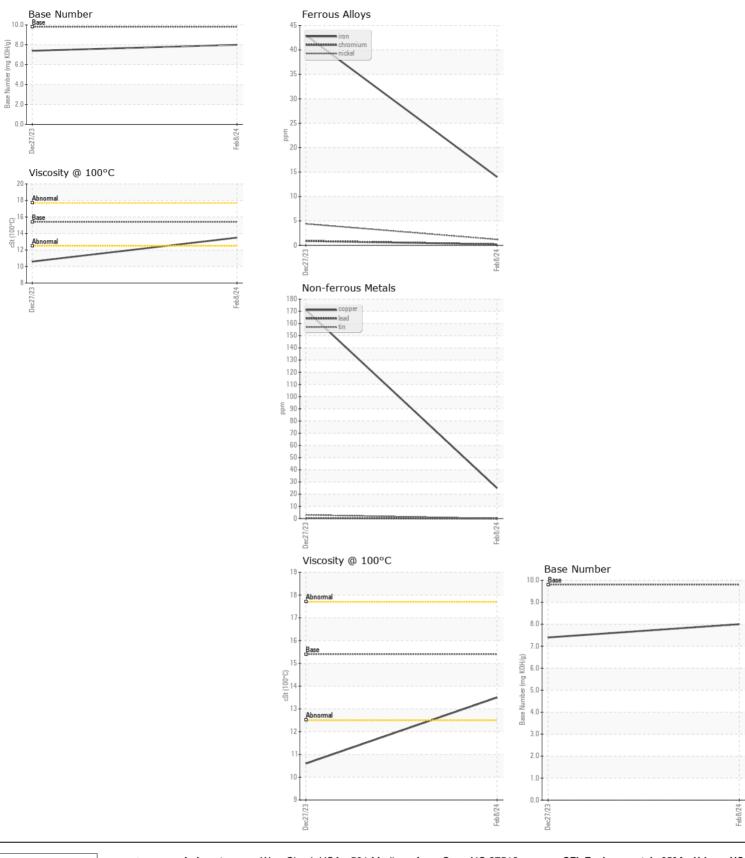


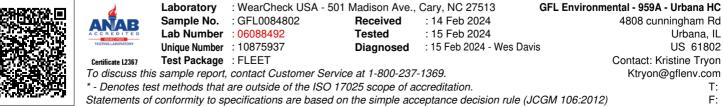
NORMAL WEAR NORMAL CONTAMINATION FLUID CONDITION NORMAL

Machine Id 914049 Component Diesel Engine

PETRO CANADA DURON SHP 15W40 (--- GAL)

| | 131140 (0 | / | | | | | |
|---|---|-----------------|--|-----------|--------------|---------------------|----------|
| RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
| Resample at the next service interval to monitor. | Sample Number | | Client Info | | GFL0084802 | GFL0084769 | |
| | Sample Date | | Client Info | | 08 Feb 2024 | 27 Dec 2023 | |
| | Machine Age | hrs | Client Info | | 967 | 630 | |
| | Oil Age | hrs | Client Info | | 630 | 0 | |
| | Filter Age | hrs | Client Info | | 0 | 0 | |
| | Oil Changed | | Client Info | | N/A | N/A | |
| | Filter Changed | | Client Info | | N/A | N/A | |
| | Sample Status | | | | NORMAL | ABNORMAL | |
| WEAR | Iron | ppm | ASTM D5185m | <120 | 14 | 43 | |
| | Chromium | ppm | ASTM D5185m | | <1 | <1 | |
| Metal levels are typical for a new component breaking in. | Nickel | | ASTM D5185m | | 1 | 4 | |
| | Titanium | ppm | | | 0 | <1 | |
| | Silver | ppm | ASTM D5185m | | | 1 | |
| | | ppm | ASTM D5185m | | 0 | | |
| | Aluminum | ppm | ASTM D5185m | | 1 | ▲ 6 | |
| | Lead | ppm | ASTM D5185m | | 0 | <1 | |
| | Copper | ppm | ASTM D5185m | | 25 | 171 | |
| | Tin | ppm | ASTM D5185m | >10 | 0 | 3 | |
| | Vanadium | ppm | ASTM D5185m | NONE | 0 | <1 | |
| | White Metal | scalar | *Visual | NONE | NONE | NONE | |
| | Yellow Metal | scalar | *Visual | NONE | NONE | NONE | |
| CONTAMINATION | Silicon | ppm | ASTM D5185m | >25 | 8 | 5 0 | |
| | Potassium | ppm | ASTM D5185m | - | 5 | 12 | |
| There is no indication of any contamination in the oil. | Fuel | 99 | WC Method | | <1.0 | 0.5 | |
| | Water | | WC Method | | NEG | NEG | |
| | Glycol | | WC Method | 20.L | NEG | NEG | |
| | Soot % | % | *ASTM D7844 | <u>_4</u> | 0.2 | 0.4 | |
| | Nitration | Abs/cm | *ASTM D7624 | >20 | 7.5 | 10.3 | |
| | Sulfation | Abs/.1mm | *ASTM D7415 | | 19.4 | 23.7 | |
| | 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 | |
| | Emulsified Water | | *Visual | >0.2 | NEG | NEG | |
| <u> </u> | | 304141 | Visual | 20.L | | NLG | |
| LUID CONDITION | Sodium | ppm | ASTM D5185m | | 0 | 4 | |
| | Boron | ppm | ASTM D5185m | 0 | 15 | 159 | |
| The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. | Barium | ppm | ASTM D5185m | | 8 | 0 | |
| | Molybdenum | ppm | ASTM D5185m | 60 | 65 | 108 | |
| | Manganese | ppm | ASTM D5185m | 0 | 0 | 4 | |
| | Magnesium | ppm | ASTM D5185m | 1010 | 880 | 723 | |
| | Calcium | ppm | ASTM D5185m | 1070 | 989 | 1301 | |
| | Phosphorus | ppm | ASTM D5185m | | 844 | 737 | |
| | Zinc | ppm | ASTM D5185m | | 1127 | 872 | |
| | | | | | | | |
| | Sulfur | ppm | ASTM D5185m | 2060 | 2672 | 2261 | |
| | Sulfur Oxidation | ppm Abs/.1mm | ASTM D5185m *ASTM D7414 | | 2672 15.5 | | |
| | Sulfur Oxidation Base Number (BN) | Abs/.1mm | ASTM D5185m *ASTM D7414 ASTM D2896 | >25 | 15.5 8.0 | 2201 21.8 7.4 | |





Submitted By: Also GFL959E - Kristine Tryon