

WEAR NORMAL CONTAMINATION ABNORMAL FLUID CONDITION NORMAL

Machine Id 04537 Component Diesel Engine Fluid PETRO CANADA DURON SHP 10W30 (9 QTS)

| RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|------------------|------------|-------------|------------|-------------|-------------|-------------|
| | Sample Number | | Client Info | | PCA0116244 | PCA0116212 | PCA0112290 |
| No corrective action is recommended at this time. Resample at the | Sample Date | | Client Info | | 26 Feb 2024 | 25 Jan 2024 | 22 Dec 2023 |
| next service interval to monitor. | Machine Age | hrs | Client Info | | 12046 | 11950 | 11276 |
| | Oil Age | hrs | Client Info | | 11950 | 200 | 11276 |
| | Filter Age | hrs | Client Info | | 0 | 200 | 0 |
| | Oil Changed | | Client Info | | N/A | Changed | N/A |
| | Filter Changed | | Client Info | | N/A | Changed | N/A |
| | Sample Status | | | | ABNORMAL | NORMAL | NORMAL |
| | | | | | | | |
| WEAR All component wear rates are normal. | Iron | ppm | ASTM D5185m | | 12 | 8 | 4 |
| | Chromium | ppm | ASTM D5185m | | 2 | <1 | <1 |
| | Nickel | ppm | ASTM D5185m | >4 | <1 | 0 | <1 |
| | Titanium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| | Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| | Aluminum | ppm | ASTM D5185m | | 3 | 1 | 3 |
| | Lead | ppm | ASTM D5185m | | <1 | 0 | 0 |
| | Copper | ppm | ASTM D5185m | >330 | 1 | <1 | 0 |
| | Tin | ppm | ASTM D5185m | >15 | <1 | 0 | <1 |
| | Vanadium | ppm | ASTM D5185m | | <1 | 0 | <1 |
| | White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| | Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| CONTAMINATION | Silicon | | ASTM D5185m | × 25 | 5 | 3 | 3 |
| CONTAMINATION | Potassium | ppm ppm | ASTM D5185m | | ▲ 56 | 25 | 0 |
| Sodium and/or potassium levels are high. Test for glycol is negative. | Fuel | ppm | WC Method | | <1.0 | <1.0 | <1.0 |
| | Water | | WC Method | | NEG | NEG | NEG |
| | Glycol | % | *ASTM D2982 | 20.2 | NEG | NEG | NEG |
| | Soot % | % | *ASTM D2302 | <u>`</u> ? | 0.5 | 0.3 | 0.3 |
| | Nitration | Abs/cm | *ASTM D7624 | >20 | 5.8 | 5.4 | 5.2 |
| | Sulfation | Abs/.1mm | *ASTM D7024 | | 17.7 | 17.2 | 16.8 |
| | 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 | | *Visual | >0.2 | NEG | NEG | NEG |
| | | Scalai | visuai | 20.2 | | NLG | NLQ |
| FLUID CONDITION | Sodium | ppm | ASTM D5185m | | 51 | 19 | 0 |
| The DN second in director that the second residual is a list in the list in the second risk is the | Boron | ppm | ASTM D5185m | 2 | 6 | 8 | 11 |
| 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 | 0 | 2 | 8 | 0 |
| | Molybdenum | ppm | ASTM D5185m | 50 | 59 | 62 | 58 |
| | Manganese | ppm | ASTM D5185m | 0 | <1 | 0 | <1 |
| | Magnesium | ppm | ASTM D5185m | 950 | 828 | 858 | 899 |
| | Calcium | ppm | ASTM D5185m | 1050 | 976 | 978 | 1036 |
| | Phosphorus | ppm | ASTM D5185m | 995 | 964 | 865 | 995 |
| | Zinc | ppm | ASTM D5185m | 1180 | 1133 | 1121 | 1232 |
| | Sulfur | ppm | ASTM D5185m | 2600 | 3365 | 2948 | 3107 |
| | Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 12.8 | 12.7 | 12.3 |
| | D N I (D1) | KOU | AOTH DOCCO | | | 0.4 | 0.0 |

Base Number (BN) mg KOH/g ASTM D2896

ASTM D445 12.00

Visc @ 100°C cSt

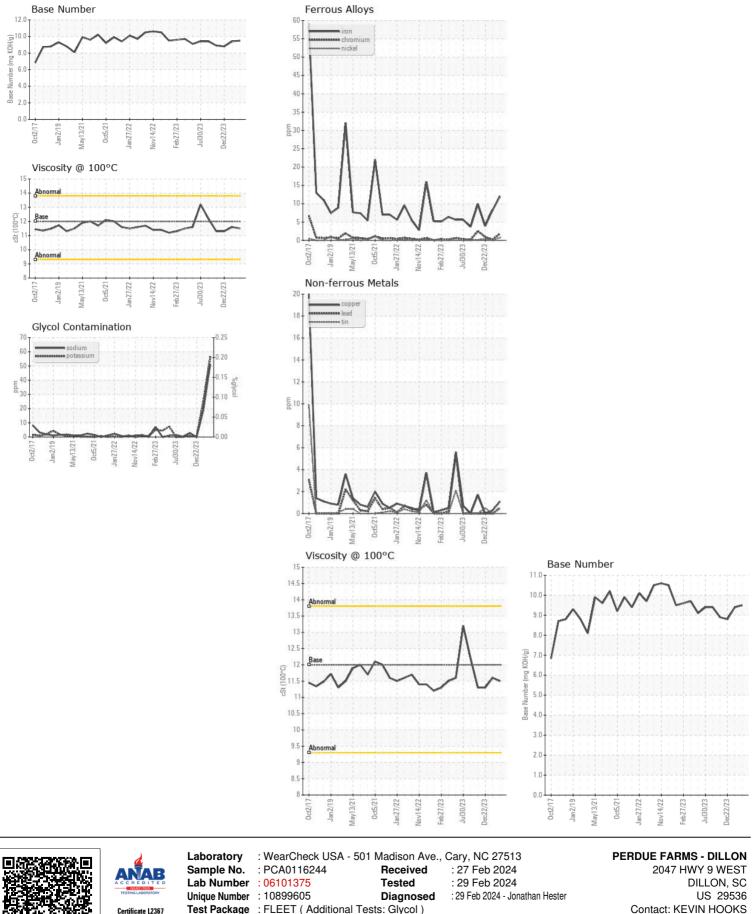
11.6

9.5

11.5

11.3

9.4 8.8



Test Package : FLEET (Additional Tests: Glycol) Certificate L2367

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)

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