

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id 417590

Component Diesel Engine

Fluid PETRO CANADA DURON SHP 10W30 (--- QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

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.

| · | | Jan2022 N | 1ay2022 Aug2022 Dec20 | 22 AprZ023 Aug2023 Dec2023 | Mar2024 | |
|------------------|----------|-------------|-----------------------|----------------------------|-------------|-------------|
| SAMPLE INFORI | MATION | method | limit/base | current | history1 | history2 |
| Sample Number | | Client Info | | PCA0093296 | PCA0093370 | PCA0093325 |
| Sample Date | | Client Info | | 18 Mar 2024 | 11 Dec 2023 | 18 Aug 2023 |
| Machine Age | mls | Client Info | | 219912 | 201501 | 0 |
| Oil Age | mls | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Changed | Not Changd | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |
| CONTAMINAT | ION | method | limit/base | current | history1 | history2 |
| Fuel | | WC Method | >5 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| WEAR METAL | S | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >100 | 82 | 47 | 46 |
| Chromium | ppm | ASTM D5185m | >20 | 2 | 2 | 1 |
| Nickel | ppm | ASTM D5185m | >4 | 0 | <1 | 0 |
| Titanium | ppm | ASTM D5185m | | 6 | 7 | 6 |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | | 14 | 8 | 13 |
| Lead | ppm | ASTM D5185m | >40 | <1 | 1 | 0 |
| Copper | ppm | | >330 | 3 | 5 | 2 |
| Tin | ppm | | >15 | 0 | <1 | <1 |
| Vanadium | ppm | ASTM D5185m | 210 | 0 | <1 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | | 2 | 4 | 6 | 7 |
| Barium | ppm | | 0 | 0 | 12 | 0 |
| Molybdenum | ppm | ASTM D5185m | 50 | 54 | 55 | 55 |
| Manganese | ppm | ASTM D5185m | | <1 | 1 | <1 |
| Magnesium | ppm | ASTM D5185m | 950 | 901 | 827 | 884 |
| Calcium | ppm | ASTM D5185m | 1050 | 1147 | 1057 | 1132 |
| Phosphorus | ppm | ASTM D5185m | 995 | 999 | 915 | 950 |
| Zinc | ppm | ASTM D5185m | 1180 | 1254 | 1144 | 1217 |
| Sulfur | ppm | ASTM D5185m | 2600 | 3292 | 2946 | 3524 |
| CONTAMINAN | | method | limit/base | current | history1 | history2 |
| Silicon | ppm | | >25 | 7 | 6 | 5 |
| Sodium | ppm | ASTM D5185m | | 4 | 0 | 2 |
| Potassium | ppm | ASTM D5185m | >20 | 8 | 9 | 10 |
| INFRA-RED | | method | limit/base | current | history1 | history2 |
| Soot % | % | *ASTM D7844 | >3 | 1.8 | 1.1 | 1.2 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 16.4 | 13.6 | 13.1 |
| Sulfation | Abs/.1mm | | >30 | 30.0 | 24.2 | 23.3 |
| FLUID DEGRA | | | limit/base | | | |
| | | | | current | history1 | history2 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 30.6 | 23.8 | 21.6 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | | 4.9 | 6.4 | 7.9 |
| | | | | | | |



Abnorma

Vlav4/22

Jan 13/22

Aug1/22

0/// Jac

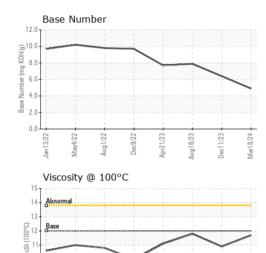
nr21/23

Aug18/23

Dec11/23

OIL ANALYSIS REPORT

VISUAL





Certificate L2367

Laboratory

Sample No.

Lab Number

Contact/Location: JAMEY RITZ - MILLEEPA