

OIL ANALYSIS REPORT

Sample Number

Sample Date

(AU766S) Supermarket - Tractor FREIGHTLINER 107A8824

Component **Diesel Engine**

PETRO CANADA DURON SHP 10W30 (11 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Fluid

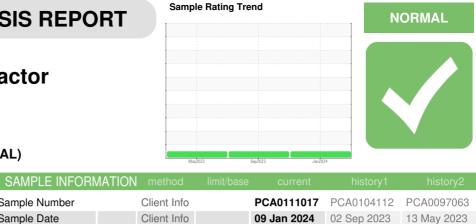
All component wear rates are normal.

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.

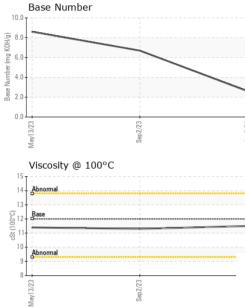


| Sample Date | | Client Into | | 09 Jan 2024 | 02 Sep 2023 | 13 May 2023 |
|-------------------------------|----------------------|----------------------------|------------|-------------|-------------|-------------|
| Machine Age | mls | Client Info | | 268542 | 253658 | 240355 |
| Oil Age | mls | Client Info | | 14884 | 13303 | 13849 |
| Oil Changed | | Client Info | | Changed | Changed | Not Changd |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |
| CONTAMINAT | | 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 | >80 | 26 | 19 | 10 |
| Chromium | ppm | ASTM D5185m | >5 | 1 | 2 | 1 |
| Nickel | ppm | ASTM D5185m | >2 | <1 | <1 | <1 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >30 | 8 | 7 | 5 |
| Lead | ppm | ASTM D5185m | >30 | <1 | 0 | <1 |
| Copper | ppm | ASTM D5185m | >150 | 6 | 6 | 2 |
| Tin | ppm | ASTM D5185m | >5 | <1 | <1 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | | | | | 7 | 15 |
| | ppm | ASTM D5185m ASTM D5185m | 2 | 6 0 | 0 | 0 |
| Barium | ppm | | | - | | |
| Molybdenum | ppm | ASTM D5185m | 50 0 | 62 | 66 1 | 66 |
| Manganese | ppm | ASTM D5185m | | <1 | | <1 |
| Magnesium | ppm | ASTM D5185m | 950 | 912 | 967 | 970 |
| Calcium | ppm | ASTM D5185m | 1050 | 1063 | 1161 | 1160 |
| Phosphorus | ppm | ASTM D5185m | 995 | 1047 | 1008 | 1066 |
| Zinc | ppm | ASTM D5185m | 1180 | 1249 | 1311 | 1337 |
| Sulfur | ppm | ASTM D5185m | 2600 | 2527 | 3367 | 3798 |
| CONTAMINAN | ITS | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >20 | 9 | 7 | 4 |
| Sodium | ppm | ASTM D5185m | | 2 | 2 | <1 |
| Potassium | ppm | ASTM D5185m | >20 | 4 | 5 | 3 |
| INFRA-RED | | method | limit/base | current | history1 | history2 |
| Soot % | % | *ASTM D7844 | >3 | 1.1 | 0.7 | 0.4 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 8.7 | 8.8 | 7.9 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 21.1 | 19.9 | 18.4 |
| FLUID DEGRA | DATION | method | limit/base | current | history1 | history2 |
| | | | | | | |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 17.1 | 15.1 | 13.5 |
| Oxidation Base Number (BN) | Abs/.1mm mg KOH/g | *ASTM D7414 ASTM D2896 | >25 | 17.1 2.6 | 15.1 6.7 | 13.5 8.6 |



OIL ANALYSIS REPORT

VISUAL



| | VISUAL | | method | limit/base | current | history1 | history2 |
|--|---|--|---------------------|---|-------------|----------------------------------|--|
| | White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| _ | Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| | Precipitate | scalar | *Visual | NONE | NONE | NONE | NONE |
| | Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| | Debris | scalar | *Visual | NONE | NONE | NONE | NONE |
| | Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Sep 2/23 - | | scalar | *Visual | NORML | NORML | NORML | NORML |
| Sept | Odor | scalar | *Visual | NORML | NORML | NORML | NORML |
| | Emulsified Water | scalar | *Visual | >0.2 | NEG | NEG | NEG |
| | Free Water | scalar | *Visual | | NEG | NEG | NEG |
| | FLUID PROPE | | | limit/base | current | history1 | history2 |
| | Visc @ 100°C | cSt | method ASTM D445 | | 11.5 | 11.3 | 11.4 |
| | GRAPHS | CSI | A511VI D445 | 12.00 | 11.5 | 11.3 | 11.4 |
| | Ferrous Alloys | | | | | | |
| | ³⁰ T | | | | | | |
| Sep 2/23 + | 25 | | | | | | |
| See | nickel | | | | | | |
| | 20- | | | | | | |
| | 튭 15- | | | | | | |
| | 10 | | | | | | |
| | 5 | | | | | | |
| | | | | | | | |
| | 23 | 2/23 | | 9/24 | | | |
| | May13/23 | Sep 2/23 | | Jan9/24 | | | |
| | – Non-ferrous Meta | ls | | | | | |
| | ¹⁰ T | | | | | | |
| | 8+ copper | | | | | | |
| | enses tin | | | | | | |
| | 6 | | | - | | | |
| | mdd 4 | | | | | | |
| | | | | | | | |
| | 2 | | | | | | |
| | | | | | | | |
| | 3/23 | Sep 2/23 - | | 9/24 - | | | |
| | May13/23 | Sept | | Jan 9/24 | | | |
| | Viscosity @ 100°(| 2 | | | Base Number | | |
| | 15 | | | 9.0 | Base Number | | |
| | 14 Abnormal | | | 8.0 | | | |
| | 13 - | | | (B)7.0 | | | |
| | 0 12 - Base | | | (0,7.0 HOX 6.0 Jao du autor autor 3.0 8 8 2.0 | 1 | | |
| | Signature Base Base Base Signature Base | | | | | | |
| | 10 | | | UN 3.0 | | | |
| | Abnormal | | | | | | |
| | | | | 1.0 | 1 | | |
| | 53 ⁴ 8 | /23 - | | 0.0 | | /23 - | |
| | May13/23 | Sep 2/23 | | Jan 9/24 | May13/23 | Sep2/23 | |
| Laboratory Sample No. Lab Number | : WearCheck USA - : PCA0111017 : 06064152 | 501 Madis Recieved Diagnos Diagnost | d :18. ed :19. | ry, NC 27513 Jan 2024 Jan 2024 s Davis | | ce - Shop 1071 - Sı 60 | permarket-Dayt A Tower Roa Dayton, N US 088 |

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