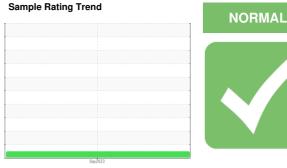


OIL ANALYSIS REPORT

(AY420B) Supermarket - Tractor FREIGHTLINER 107A1876

Component **Diesel Engine**

PETRO CANADA DURON SHP 10W30 (11 GAL)



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Metal levels are typical for a new component breaking in.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

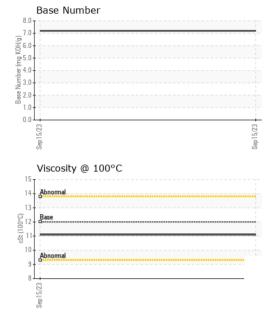
Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| GAL) | | | | Sep2023 | | |
|------------------|----------|-------------|------------|-------------|----------|----------|
| SAMPLE INFOR | MATION | method | limit/base | current | history1 | history2 |
| Sample Number | | Client Info | | PCA0104815 | | |
| Sample Date | | Client Info | | 15 Sep 2023 | | |
| Machine Age | mls | Client Info | | 53979 | | |
| Oil Age | mls | Client Info | | 29484 | | |
| Oil Changed | | Client Info | | Changed | | |
| Sample Status | | | | NORMAL | | |
| CONTAMINAT | ION | method | limit/base | current | history1 | history2 |
| Fuel | | WC Method | >5 | <1.0 | | |
| Glycol | | WC Method | | NEG | | |
| | | method | limit/base | current | history1 | history2 |
| | | | | | | motoryz |
| Iron | ppm | ASTM D5185m | >80 | 42 | | |
| Chromium | ppm | ASTM D5185m | >5 | 4 | | |
| Nickel | ppm | ASTM D5185m | >2 | <1 | | |
| Titanium | ppm | ASTM D5185m | | 0 | | |
| Silver | ppm | ASTM D5185m | >3 | <1 | | |
| Aluminum | ppm | ASTM D5185m | >30 | 56 | | |
| Lead | ppm | ASTM D5185m | >30 | 0 | | |
| Copper | ppm | ASTM D5185m | >150 | 43 | | |
| Tin | ppm | ASTM D5185m | >5 | 2 | | |
| Vanadium | ppm | ASTM D5185m | | 0 | | |
| Cadmium | ppm | ASTM D5185m | | 0 | | |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | 2 | 6 | | |
| Barium | ppm | ASTM D5185m | 0 | 0 | | |
| Molybdenum | ppm | ASTM D5185m | 50 | 60 | | |
| Manganese | ppm | ASTM D5185m | 0 | 2 | | |
| Magnesium | ppm | ASTM D5185m | 950 | 942 | | |
| Calcium | ppm | ASTM D5185m | 1050 | 1334 | | |
| Phosphorus | ppm | ASTM D5185m | 995 | 990 | | |
| Zinc | ppm | ASTM D5185m | 1180 | 1276 | | |
| Sulfur | ppm | ASTM D5185m | 2600 | 2752 | | |
| CONTAMINAN | ITS | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >20 | 5 | | |
| Sodium | ppm | ASTM D5185m | | 3 | | |
| Potassium | ppm | ASTM D5185m | >20 | 135 | | |
| INFRA-RED | | method | limit/base | current | history1 | history2 |
| Soot % | % | *ASTM D7844 | >3 | 0 | | |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 8.1 | | |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 21.7 | | |
| FLUID DEGRAI | DATION | method | limit/base | current | history1 | history2 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 12.7 | | |
| Base Number (BN) | mg KOH/g | ASTM D2896 | | 7.2 | | |



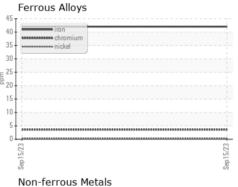
OIL ANALYSIS REPORT



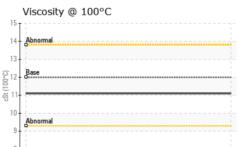
| VISUAL | | method | limit/base | current | history1 | history2 |
|-------------------------|--------|---------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | | |
| Yellow Metal | scalar | *Visual | NONE | NONE | | |
| Precipitate | scalar | *Visual | NONE | NONE | | |
| Silt | scalar | *Visual | NONE | NONE | | |
| Debris | scalar | *Visual | NONE | NONE | | |
| Sand/Dirt | scalar | *Visual | NONE | NONE | | |
| Appearance | scalar | *Visual | NORML | NORML | | |
| Odor | scalar | *Visual | NORML | NORML | | |
| Emulsified Water | scalar | *Visual | >0.2 | NEG | | |
| Free Water | scalar | *Visual | | NEG | | |
| FLUID PROPE | RTIES | method | limit/base | current | history1 | history2 |

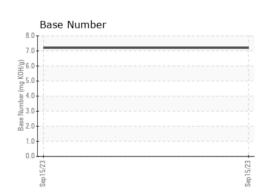
| FLUID FROFI | | memou | | | HISTOLAL | HISTOLY |
|--------------|-----|-----------|-------|------|----------|---------|
| Visc @ 100°C | cSt | ASTM D445 | 12.00 | 11.1 | | |

GRAPHS











Certificate L2367

Laboratory Sample No. Lab Number Unique Number : 10659264 Test Package : FLEET

: 05958051

: PCA0104815

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 21 Sep 2023

Diagnosed : 22 Sep 2023 Diagnostician : Wes Davis

Transervice - Shop 1072 - Supermarket-Elizabeth

505 Division Street Elizabeth, NJ US 07207

Contact: Normand Brizak nbrizak@transervice.com T:

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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