

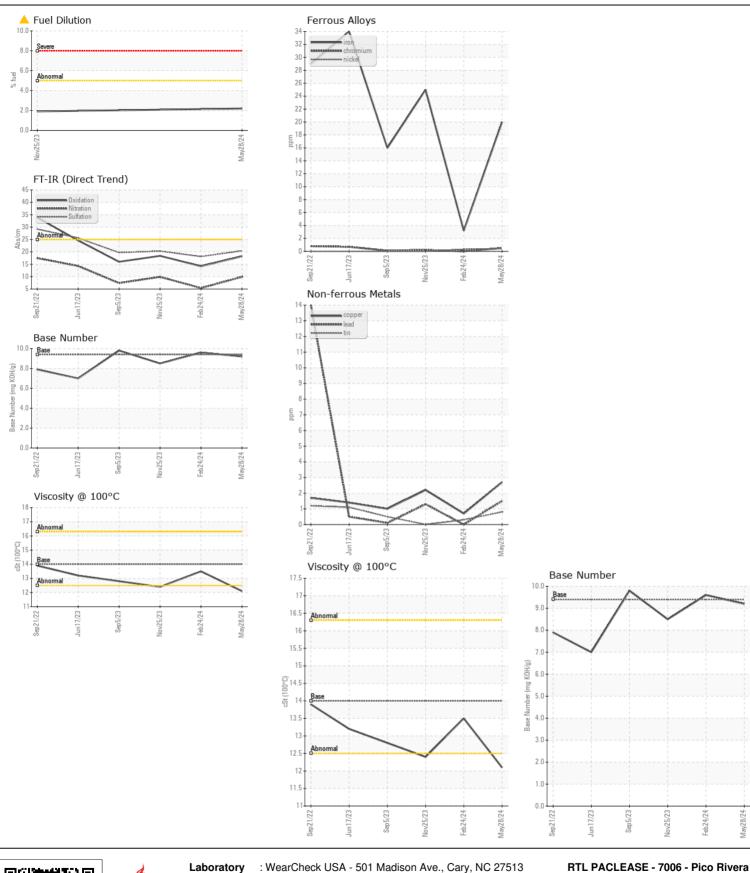
WEAR CONTAMINATION **FLUID CONDITION**

NORMAL MARGINAL NORMAL

Machine Id

HINO 8464192 Component Diesel Engine

| RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|-------------------------|----------|----------------------------|-----------|-------------|-------------|-------------|
| | Sample Number | | Client Info | | RPL0021080 | RPL0017976 | RPL0016791 |
| No corrective action is recommended at this time. Resample at the next service interval to monitor. | Sample Date | | Client Info | | 28 May 2024 | 24 Feb 2024 | 25 Nov 2023 |
| | Machine Age | mls | Client Info | | 185896 | 0 | 173533 |
| | Oil Age | mls | Client Info | | 17709 | 0 | 3338 |
| | Filter Age | mls | Client Info | | 17709 | 0 | 3338 |
| | Oil Changed | | Client Info | | Not Changd | N/A | Not Chango |
| | Filter Changed | | Client Info | | Not Changd | N/A | Not Chango |
| | Sample Status | | | | MARGINAL | NORMAL | NORMAL |
| WEAR | Iron | ppm | ASTM D5185m | >100 | 20 | 3 | 25 |
| WEAIT | Chromium | ppm | ASTM D5185m | | <1 | 0 | <1 |
| All component wear rates are normal. | Nickel | ppm | ASTM D5185m | | <1 | <1 | 0 |
| | Titanium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| | Silver | ppm | ASTM D5185m | >3 | <1 | <1 | 0 |
| | Aluminum | ppm | ASTM D5185m | >20 | 2 | 2 | 2 |
| | Lead | ppm | ASTM D5185m | | 2 | 0 | 1 |
| | Copper | ppm | ASTM D5185m | >330 | 3 | <1 | 2 |
| | Tin | ppm | ASTM D5185m | >15 | <1 | <1 | 0 |
| | Vanadium | ppm | ASTM D5185m | | <1 | <1 | 0 |
| | White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| | Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| CONTAMINATION | Ciliana | | ACTM DE10E | 05 | | | |
| CONTAMINATION | Silicon | ppm | ASTM D5185m | | 6 | 6 | 3 |
| Light fuel dilution occurring. No other contaminants were detected in the oil. | Potassium | ppm | ASTM D5185m | | 3 | 0 | 2 |
| | Fuel | % | ASTM D3524 | | ▲ 2.2 | <1.0 | 1.9 |
| | Water Glycol | | WC Method WC Method | >0.2 | NEG NEG | NEG NEG | NEG NEG |
| | Soot % | % | *ASTM D7844 | · 3 | 0.5 | 0.1 | 0.4 |
| | Nitration | Abs/cm | *ASTM D7624 | | 9.9 | 5.4 | 9.9 |
| | Sulfation | Abs/.1mm | *ASTM D7415 | | 20.4 | 18.1 | 20.3 |
| | 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 |
| EL LUD CONDITION | O- 4: | | ACTM DE10E | | 4 | | |
| FLUID CONDITION | Sodium | ppm | ASTM D5185m ASTM D5185m | 0 | 1 | 0 | 1 |
| The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. | Boron Barium | ppm | ASTM D5185m | | 3 | 4 | 0 |
| | Molybdenum | ppm | ASTM D5185m | | <1 67 | 0 56 | 0 59 |
| | Manganese | ppm | ASTM D5185m | U | 1 | <1 | <1 |
| | Magnesium | ppm | ASTM D5185m | 0 | 958 | 968 | 983 |
| | Calcium | ppm | ASTM D5185m | U | 1124 | 995 | 1081 |
| | Phosphorus | ppm | ASTM D5185m | | 986 | 1064 | 992 |
| | Zinc | ppm | ASTM D5185m | | 1255 | 1282 | 1279 |
| | Sulfur | ppm | ASTM D5185m | | 3236 | 3356 | 3418 |
| | Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 18.2 | 14.2 | 18.4 |
| | Base Number (BN) | | ASTM D2896 | | 9.2 | 9.6 | 8.5 |
| | Visc @ 100°C | mg nomg | 710 TWI D2000 | 0.4 | V. L | 13.5 | 12.4 |







Certificate L2367

Laboratory Sample No.

: RPL0021080 **Lab Number** : 06213148 Unique Number : 11086012

Received **Tested** Diagnosed

: 18 Jun 2024 : 20 Jun 2024

: 20 Jun 2024 - Wes Davis Test Package: FLEET (Additional Tests: FuelDilution, PercentFuel)

7837 Telegraph Rd Pico Rivera, CA US 90660

Contact: GERARDO CARROLA carrolag@rushenterprises.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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