

WEAR CONTAMINATION FLUID CONDITION

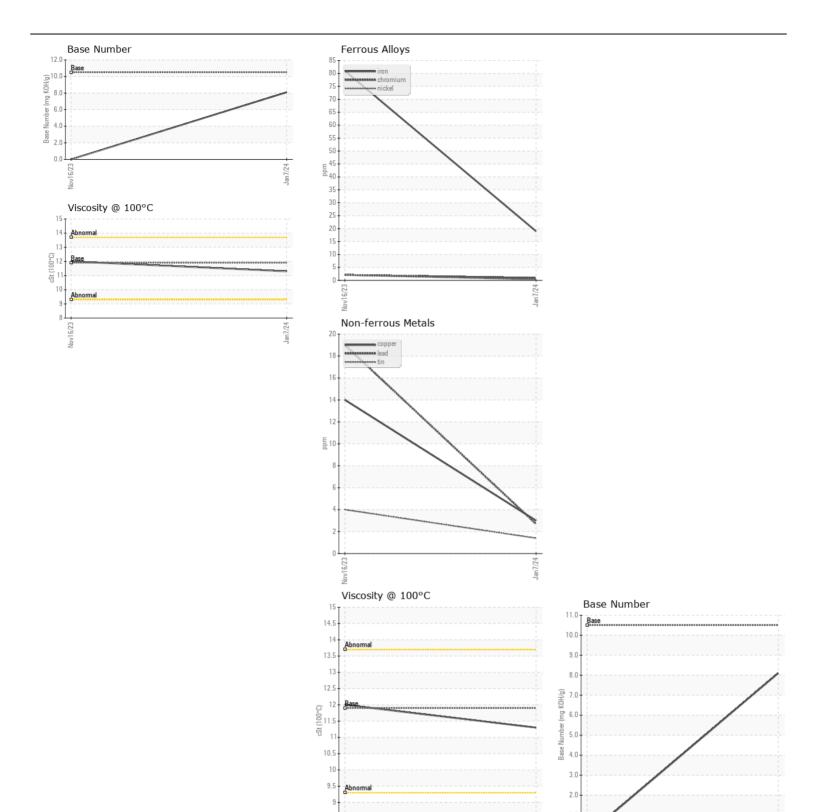
NORMAL NORMAL

Machine Id

28

Component **Diesel Engine**

| RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|------------------|----------|--------------|-----------|-------------|--------------|----------|
| | Sample Number | | Client Info | | TLY0001861 | TLY0001840 | |
| Resample at the next service interval to monitor. Please specify the component make and model with your next sample. | Sample Date | | Client Info | | 07 Jan 2024 | 16 Nov 2023 | |
| | Machine Age | mls | Client Info | | 747495 | 742731 | |
| | Oil Age | mls | Client Info | | 0 | 0 | |
| | Filter Age | mls | Client Info | | 0 | 0 | |
| | Oil Changed | | Client Info | | Changed | Changed | |
| | Filter Changed | | Client Info | | N/A | Changed | |
| | Sample Status | | | | NORMAL | ABNORMAL | |
| WEAR | Iron | nnm | ASTM D5185m | >100 | 19 | 81 | |
| WEAR | Chromium | ppm | ASTM D5185m | | <1 | 2 | |
| All component wear rates are normal. | Nickel | ppm | ASTM D5185m | | <1 | 2 | |
| | Titanium | ppm | ASTM D5185m | >4 | 0 | <1 | |
| | Silver | ppm | ASTM D5185m | \3 | 0 | 0 | |
| | Aluminum | ppm | ASTM D5185m | | 1 | <1 | |
| | Lead | ppm | ASTM D5185m | | 3 | 19 | |
| | Copper | ppm | ASTM D5185m | | 3 | 14 | |
| | Tin | ppm | ASTM D5185m | | 1 | 4 | |
| | Vanadium | ppm | ASTM D5185m | 710 | 0 | 0 | |
| | White Metal | scalar | *Visual | NONE | NONE | NONE | |
| | Yellow Metal | scalar | *Visual | NONE | NONE | NONE | |
| | | | | | | | |
| CONTAMINATION | Silicon | ppm | ASTM D5185m | >25 | 16 | 11 | |
| There is no indication of any contamination in the oil. | Potassium | ppm | ASTM D5185m | >20 | <1 | 5 | |
| | Fuel | | WC Method | | <1.0 | <1.0 | |
| | Water | | WC Method | >0.2 | NEG | NEG | |
| | Glycol | | WC Method | | NEG | NEG | |
| | Soot % | % | *ASTM D7844 | | 1.2 | <u>4.8</u> | |
| | Nitration | Abs/cm | *ASTM D7624 | | 10.2 | 13.4 | |
| | Sulfation | Abs/.1mm | *ASTM D7415 | | 24.4 | 29.6 | |
| | Silt | scalar | *Visual | NONE | NONE | NONE | |
| | Debris | scalar | *Visual | NONE | NONE | NONE | |
| | Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | |
| | Appearance | scalar | *Visual | NORML | NORML | NORML | |
| | Odor | scalar | *Visual | NORML | NORML | NORML | |
| | Emulsified Water | scalar | *Visual | >0.2 | NEG | NEG | |
| FLUID CONDITION | Sodium | ppm | ASTM D5185m | | 2 | <1 | |
| | Boron | ppm | ASTM D5185m | | 48 | 25 | |
| 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 | <1 | |
| | Molybdenum | ppm | ASTM D5185m | | 47 | 55 | |
| | Manganese | ppm | ASTM D5185m | | <1 | 1 | |
| | Magnesium | ppm | ASTM D5185m | | 593 | 523 | |
| | Calcium | ppm | ASTM D5185m | | 1601 | 1472 | |
| | Phosphorus | ppm | ASTM D5185m | | 887 | 718 | |
| | Zinc | ppm | ASTM D5185m | | 1020 | 873 | |
| | Sulfur | ppm | ASTM D5185m | | 2795 | 2379 | |
| | Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 21.8 | 22.0 | |
| | D N I (DN) | I/OII/- | A CTAA DOOOC | 10.5 | | △ 0.0 | |
| | Base Number (BN) | mg KOH/g | ASTM D2896 | 10.5 | 8.1 | 0.0 | |







Laboratory Sample No. Lab Number

: 06054567 Unique Number : 10820516

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : TLY0001861

Recieved : 08 Jan 2024 Diagnosed Diagnostician : Wes Davis

: 09 Jan 2024

Test Package : CONST (Additional Tests: TBN)

* - 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)

To discuss this sample report, contact Customer Service at 1-800-237-1369.

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