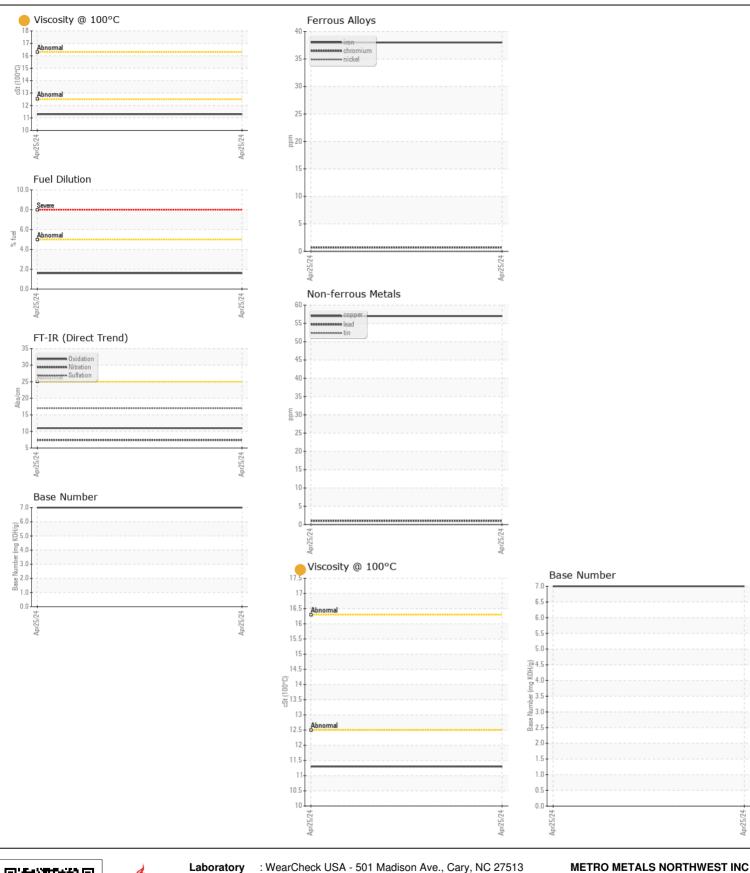
WEAR CONTAMINATION **FLUID CONDITION**

NORMAL NORMAL ATTENTION

Machine Id

T72
Component
Diesel Engine

| SHELL 15W40 (GAL) | | | | | | | |
|---|------------------|----------|-------------|-----------|-------------|----------|----------|
| RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
| Resample at the next service interval to monitor. | Sample Number | | Client Info | | WC0916574 | | |
| | Sample Date | | Client Info | | 25 Apr 2024 | | |
| | Machine Age | mls | Client Info | | 243140 | | |
| | Oil Age | mls | Client Info | | 0 | | |
| | Filter Age | mls | Client Info | | 0 | | |
| | Oil Changed | | Client Info | | N/A | | |
| | Filter Changed | | Client Info | | N/A | | |
| | Sample Status | | | | ATTENTION | | |
| MEAR | lvon | | ACTM DE10Em | . 100 | 00 | | |
| WEAR | Iron | ppm | ASTM D5185m | | 38 | | |
| All component wear rates are normal. | Chromium | ppm | ASTM D5185m | | <1 | | |
| | Nickel | ppm | ASTM D5185m | >4 | 0 | | |
| | Titanium | ppm | ASTM D5185m | _ | 8 | | |
| | Silver | ppm | ASTM D5185m | | <1 | | |
| | Aluminum | ppm | ASTM D5185m | | 1 | | |
| | Lead | ppm | ASTM D5185m | | 1 | | |
| | Copper | ppm | ASTM D5185m | | 57 | | |
| | Tin | ppm | ASTM D5185m | >15 | 0 | | |
| | Vanadium | ppm | ASTM D5185m | | <1 | | |
| | White Metal | scalar | *Visual | NONE | NONE | | |
| | Yellow Metal | scalar | *Visual | NONE | NONE | | |
| CONTAMINATION | Silicon | ppm | ASTM D5185m | >25 | 11 | | |
| | Potassium | ppm | ASTM D5185m | >20 | <1 | | |
| Fuel content negligible. There is no indication of any contamination in the oil. | Fuel | % | ASTM D3524 | | 1.6 | | |
| | Water | , , | WC Method | | NEG | | |
| | Glycol | | WC Method | 7 0.2 | NEG | | |
| | Soot % | % | *ASTM D7844 | \3 | 0.3 | | |
| | Nitration | Abs/cm | *ASTM D7624 | >20 | 7.4 | | |
| | Sulfation | Abs/.1mm | *ASTM D7415 | | 17.0 | | |
| | 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 | | *Visual | >0.2 | NEG | | |
| | | | | | | | |
| FLUID CONDITION | Sodium | ppm | ASTM D5185m | >150 | 1 | | |
| The oil vices of the lower than normal. The DN requiting indicates that | Boron | ppm | ASTM D5185m | | 30 | | |
| The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type. | Barium | ppm | ASTM D5185m | | 0 | | |
| | Molybdenum | ppm | ASTM D5185m | | 12 | | |
| | Manganese | ppm | ASTM D5185m | | <1 | | |
| | Magnesium | ppm | ASTM D5185m | | 127 | | |
| | Calcium | ppm | ASTM D5185m | | 2330 | | |
| | Phosphorus | ppm | ASTM D5185m | | 949 | | |
| | Zinc | ppm | ASTM D5185m | | 1076 | | |
| | Sulfur | ppm | ASTM D5185m | | 4009 | | |
| | Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 11.0 | | |
| | | | | | | | |
| | Base Number (BN) | mg KOH/g | ASTM D2896 | | 7.0 | | |







Certificate L2367

Laboratory Sample No.

: WC0916574 Lab Number : 06193500

Unique Number : 11050252

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 29 May 2024 : 31 May 2024 **Tested**

Diagnosed Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

: 31 May 2024 - Don Baldridge

2202 EAST RIVER ST TACOMA, WA US 98421

> Contact: MICHELE MARTINEZ mmartinez@metrometalswa.com T: (800)562-8464

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)