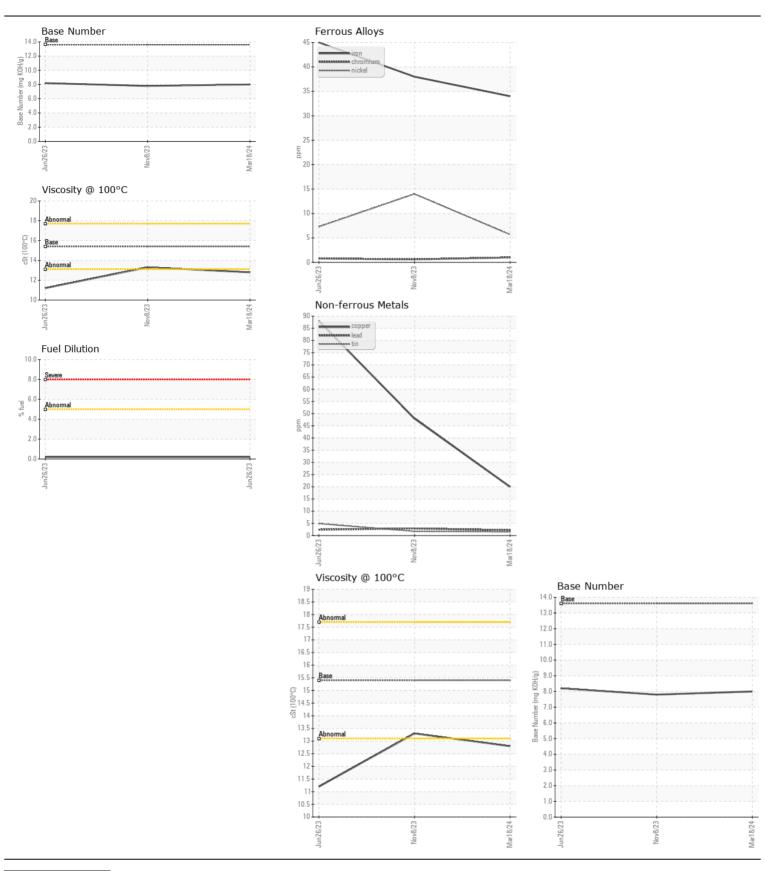
WEAR CONTAMINATION **FLUID CONDITION**

NORMAL NORMAL NORMAL

Machine Id 000245

Component Diesel Engine

| RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|------------------|---------------|-------------|-----------|-------------|-------------|------------|
| Resample at the next service interval to monitor. | Sample Number | | Client Info | | JR0208151 | JR0192351 | JR017468 |
| | Sample Date | | Client Info | | 18 Mar 2024 | 08 Nov 2023 | 26 Jun 202 |
| | Machine Age | hrs | Client Info | | 1465 | 945 | 467 |
| | Oil Age | hrs | Client Info | | 987 | 478 | 0 |
| | Filter Age | hrs | Client Info | | 987 | 0 | 0 |
| | Oil Changed | | Client Info | | Changed | N/A | Changed |
| | Filter Changed | | Client Info | | Changed | N/A | Changed |
| | Sample Status | | | | NORMAL | NORMAL | ATTENTION |
| VEAR | Iron | nnm | ASTM D5185m | >100 | 34 | 38 | 45 |
| WEAR | Chromium | ppm | ASTM D5185m | | 1 | <1 | <1 |
| All component wear rates are normal. | Nickel | ppm | ASTM D5185m | | 6 | 14 | 7 |
| | Titanium | ppm | ASTM D5185m | >4 | <1 | 0 | <1 |
| | Silver | | ASTM D5185m | . 3 | 0 | 0 | <1 |
| | Aluminum | ppm | ASTM D5185m | | - | 4 | 5 |
| | Lead | ppm | ASTM D5185m | | 6 2 | 3 | 2 |
| | Copper | ppm ppm | ASTM D5185m | | 20 | 48 | 88 |
| | Tin | | ASTM D5185m | | 20 | 2 | 5 |
| | Vanadium | ppm | ASTM D5185m | >10 | <1 | 0 | 0 |
| | White Metal | ppm scalar | *Visual | NONE | NONE | NONE | NONE |
| | Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| | | | | | | | |
| CONTAMINATION | Silicon | ppm | ASTM D5185m | >25 | 9 | 9 | 11 |
| There is no indication of any contamination in the cil | Potassium | ppm | ASTM D5185m | >20 | 3 | <1 | 6 |
| There is no indication of any contamination in the oil. | Fuel | % | ASTM D3524 | >5 | <1.0 | <1.0 | 0.2 |
| | Water | | WC Method | >0.2 | NEG | NEG | NEG |
| | Glycol | | WC Method | | NEG | NEG | NEG |
| | Soot % | % | *ASTM D7844 | >3 | 0.4 | 0.4 | 0.3 |
| | Nitration | Abs/cm | *ASTM D7624 | >20 | 8.9 | 9.1 | 9.6 |
| | Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 24.0 | 23.9 | 25.8 |
| | 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 | NORM |
| | Odor | scalar | *Visual | NORML | NORML | NORML | NORM |
| | Emulsified Water | scalar | *Visual | >0.2 | NEG | NEG | NEG |
| FLUID CONDITION | Sodium | ppm | ASTM D5185m | | 2 | 3 | 5 |
| | Boron | ppm | ASTM D5185m | | 143 | 150 | 193 |
| 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 | <1 |
| | Molybdenum | ppm | ASTM D5185m | | 219 | 246 | 222 |
| | Manganese | ppm | ASTM D5185m | | 1 | 1 | 2 |
| | Magnesium | ppm | ASTM D5185m | | 706 | 839 | 856 |
| | Calcium | ppm | ASTM D5185m | | 1752 | 1475 | 1496 |
| | Phosphorus | ppm | ASTM D5185m | | 883 | 867 | 850 |
| | Zinc | ppm | ASTM D5185m | | 1113 | 1083 | 1112 |
| | Sulfur | ppm | ASTM D5185m | | 3153 | 2673 | 3246 |
| | Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 18.7 | 19.9 | 22.3 |
| | Base Number (BN) | | | | 8.0 | 7.8 | 8.2 |
| | | 99 | | | | | |







Laboratory

Sample No. Lab Number : 06123499

: JR0208151

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

Received **Tested** Unique Number: 10937650

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

: 21 Mar 2024 : 22 Mar 2024 - Don Baldridge

: 20 Mar 2024

CWS-STRITTMATTER 9102 OWENS DR MANASSAS PARK, VA US 20111

Contact: EDDIE GARRETSON egarretson@strittmattercompanies.com

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. T: (703)335-2255 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (703)335-8095