WEAR CONTAMINATION FLUID CONDITION

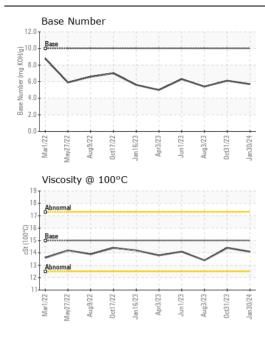
NORMAL NORMAL NORMAL

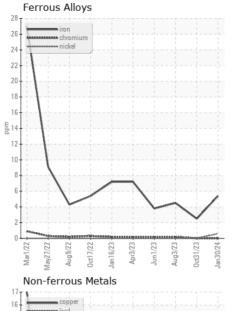
Machine Id

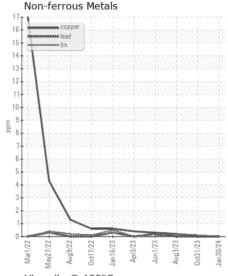
015-R0006

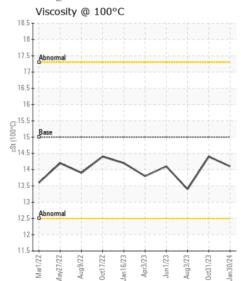
Component
Diesel Engine

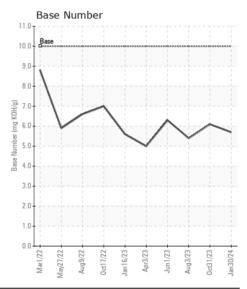
| Diesel Engine | | | | | | | |
|---|----------------------------|----------|-----------------|----------------|--------------|-----------------|----------------|
| SCHAEFFER SUPREME 7000 (GAL) | | | | | | | |
| | | | | | | | |
| RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
| Resample at the next service interval to monitor. Please specify the component make and model with your next sample. | Sample Number | | Client Info | | WC0868347 | WC0868330 | WC0814980 |
| | Sample Date | bro | Client Info | | 30 Jan 2024 | 31 Oct 2023 | 03 Aug 2023 |
| | Machine Age | hrs | Client Info | | 6096 | 5555 | 4821 |
| | Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| | Filter Age | hrs | Client Info | | Changed | | |
| | Oil Changed Filter Changed | | Client Info | | Changed | Changed Changed | Changed |
| | Sample Status | | Client inio | | NORMAL | NORMAL | Changed NORMAL |
| <u></u> | | | | | INUNIVIAL | NORIVIAL | NORWAL |
| WEAR | Iron | ppm | ASTM D5185m | >100 | 5 | 2 | 4 |
| | Chromium | ppm | ASTM D5185m | >20 | 0 | 0 | <1 |
| All component wear rates are normal. | Nickel | ppm | ASTM D5185m | >4 | <1 | 0 | 0 |
| | Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| | Silver | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| | Aluminum | ppm | ASTM D5185m | >20 | 8 | 4 | 6 |
| | Lead | ppm | ASTM D5185m | >40 | 0 | 0 | 0 |
| | Copper | ppm | ASTM D5185m | >330 | 0 | 0 | <1 |
| | Tin | ppm | ASTM D5185m | >15 | 0 | <1 | <1 |
| | Vanadium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| | White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| | Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| CONTARUNATION | | | | | _ | _ | |
| CONTAMINATION | Silicon | ppm | ASTM D5185m | | 5 | 5 | 6 |
| There is no indication of any contamination in the oil. | Potassium | ppm | ASTM D5185m | | 1 | <1 | 0 |
| | Fuel | | WC Method | | <1.0 | <1.0 | <1.0 |
| | Water | | WC Method | >0.2 | NEG | NEG | NEG |
| | Glycol | 0.1 | WC Method | 0 | NEG | NEG | NEG |
| | Soot % | % | *ASTM D7844 | | 0.1 | 0.1 | 0.1 |
| | Nitration | Abs/cm | *ASTM D7624 | >20 | 9.8 | 9.9 | 9.6 |
| | Sulfation | Abs/.1mm | *ASTM D7415 | | 19.6 | 19.9 | 19.4 |
| | Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| | Debris | scalar | *Visual | NONE | NONE | NONE | |
| | Sand/Dirt | scalar | *Visual | NONE | NONE | NONE NORML | NONE |
| | Appearance Odor | scalar | *Visual *Visual | NORML NORML | NORML | NORML | NORML NORML |
| | Emulsified Water | scalar | | >0.2 | NORML NEG | NEG | NEG |
| <u></u> | | Scalai | Visuai | >0.2 | | NLG | INLG |
| FLUID CONDITION | Sodium | ppm | ASTM D5185m | | 2 | <1 | 1 |
| | Boron | ppm | ASTM D5185m | | 62 | 53 | 43 |
| 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 | 0 | 0 |
| | Molybdenum | ppm | ASTM D5185m | 50 | 73 | 72 | 77 |
| | Manganese | ppm | ASTM D5185m | | <1 | 0 | <1 |
| | Magnesium | ppm | ASTM D5185m | 1000 | 16 | 16 | 18 |
| | Calcium | ppm | ASTM D5185m | 1400 | 2091 | 2259 | 2272 |
| | Phosphorus | ppm | ASTM D5185m | 985 | 1047 | 1115 | 1071 |
| | Zinc | ppm | ASTM D5185m | 1060 | 1259 | 1379 | 1291 |
| | Sulfur | ppm | ASTM D5185m | 4000 | 5117 | 5471 | 6222 |
| | Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 16.8 | 16.9 | 16.2 |
| | | | | | | | |
| | Base Number (BN) | mg KOH/g | ASTM D2896 | 10 | 5.7 | 6.1 | 5.4 |













Laboratory Sample No.

Lab Number : 06088053 Unique Number: 10875498

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0868347

Received **Tested** Diagnosed

Test Package : CONST (Additional Tests: TBN)

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. SHIMMICK CONSTRUCTION

5535 TRAILHEAD DRIVE CHATTANOOGA, TN

US 37415

Contact: DANIEL LISELLA daniel.lisella@shimmick.com

T: F:

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

: 13 Feb 2024

: 14 Feb 2024

: 14 Feb 2024 - Wes Davis