



WEAR CHECK

OIL ANALYSIS REPORT

| | |
|-----------------|---------------|
| WEAR | NORMAL |
| CONTAMINATION | NORMAL |
| FLUID CONDITION | NORMAL |

Area

[Z20819]

Machine Id

KENWORTH NLC783 - TACOMA TRANSPORT

Component

Diesel Engine

Fluid

VALVOLINE (48 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|---------------|-------------|----------|
| Sample Number | | Client Info | | WC06189893 | WC05894207 | --- |
| Sample Date | | Client Info | | 02 May 2024 | 11 May 2023 | --- |
| Machine Age | kms | Client Info | | 354458 | 236945 | --- |
| Oil Age | kms | Client Info | | 44962 | 31063 | --- |
| Filter Age | kms | Client Info | | 44962 | 0 | --- |
| Oil Changed | | Client Info | | Changed | Changed | --- |
| Filter Changed | | Client Info | | N/A | N/A | --- |
| Sample Status | | | | NORMAL | NORMAL | --- |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|------|------|-----|
| Iron | ppm | ASTM D5185m | >90 | 39 | 24 | --- |
| Chromium | ppm | ASTM D5185m | >20 | 3 | 2 | --- |
| Nickel | ppm | ASTM D5185m | >2 | <1 | 0 | --- |
| Titanium | ppm | ASTM D5185m | >2 | <1 | 0 | --- |
| Silver | ppm | ASTM D5185m | >2 | <1 | 0 | --- |
| Aluminum | ppm | ASTM D5185m | >20 | 3 | 3 | --- |
| Lead | ppm | ASTM D5185m | >40 | 11 | 2 | --- |
| Copper | ppm | ASTM D5185m | >330 | 2 | <1 | --- |
| Tin | ppm | ASTM D5185m | >15 | 2 | <1 | --- |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | --- |
| White Metal | scalar | *Visual | NONE | NONE | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | --- |

CONTAMINATION

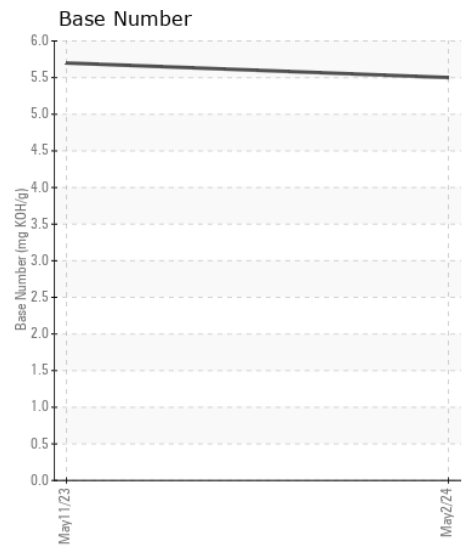
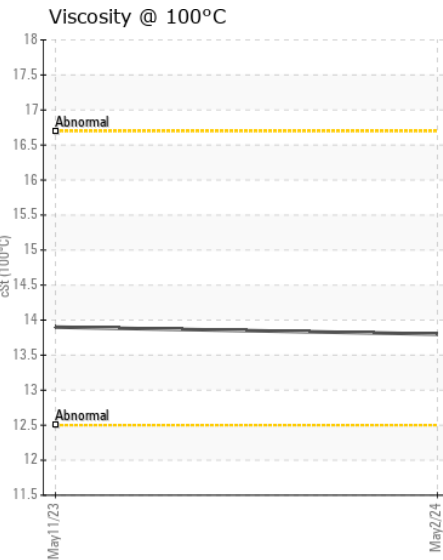
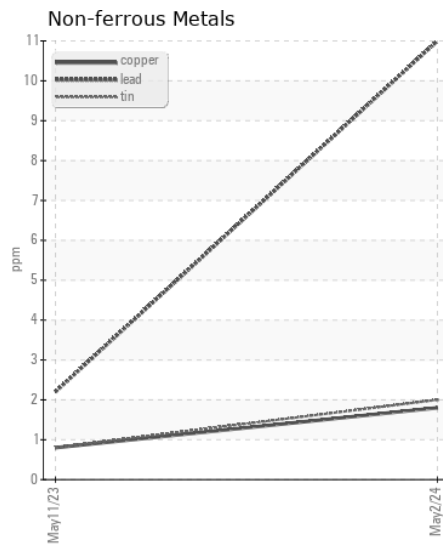
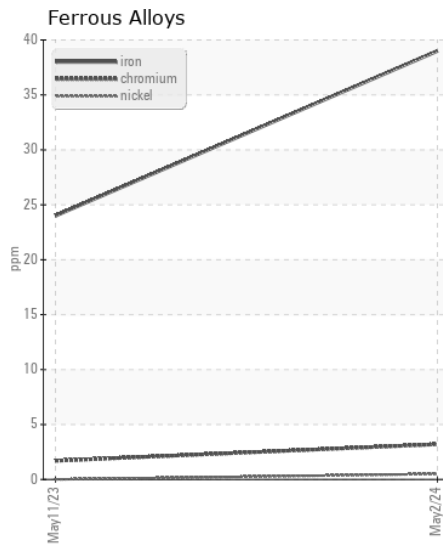
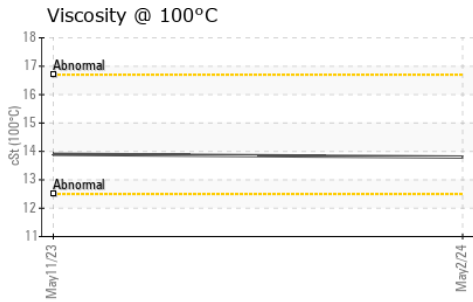
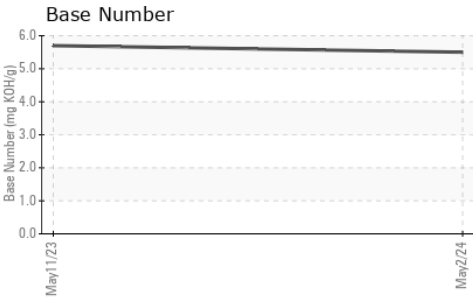
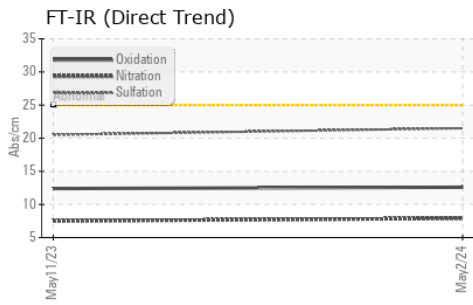
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|-------|-------|-----|
| Silicon | ppm | ASTM D5185m | >25 | 8 | 4 | --- |
| Potassium | ppm | ASTM D5185m | >20 | 2 | 2 | --- |
| Fuel | | WC Method | >3.0 | <1.0 | <1.0 | --- |
| Water | | WC Method | >0.2 | NEG | NEG | --- |
| Glycol | | WC Method | | NEG | NEG | --- |
| Soot % | % | *ASTM D7844 | >6 | 0.7 | 0.7 | --- |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 7.9 | 7.5 | --- |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 21.5 | 20.5 | --- |
| 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

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| | | | | | | |
|------------------|----------|-------------|-----|------|------|-----|
| Sodium | ppm | ASTM D5185m | | 2 | 2 | --- |
| Boron | ppm | ASTM D5185m | | 5 | 0 | --- |
| Barium | ppm | ASTM D5185m | | 0 | 0 | --- |
| Molybdenum | ppm | ASTM D5185m | | 6 | <1 | --- |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | --- |
| Magnesium | ppm | ASTM D5185m | | 49 | 19 | --- |
| Calcium | ppm | ASTM D5185m | | 3503 | 2508 | --- |
| Phosphorus | ppm | ASTM D5185m | | 1288 | 984 | --- |
| Zinc | ppm | ASTM D5185m | | 1556 | 1181 | --- |
| Sulfur | ppm | ASTM D5185m | | 5092 | 4556 | --- |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 12.6 | 12.4 | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | | 5.5 | 5.7 | --- |
| Visc @ 100°C | cSt | ASTM D445 | | 13.8 | 13.9 | --- |



Certificate L2367

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

Sample No. : WC06189893

Lab Number : 06189893

Unique Number : 11046645

Test Package : FLEET

Received : 23 May 2024

Tested : 25 May 2024

Diagnosed : 25 May 2024 - Wes Davis

GLOBAL OIL NZ

62B MILTON RD

OTUMOETAU, ZZ

NZ 3110

Contact: SCOTT NICHOLLS

scott@astrea.co.nz

T: (642)145-5680

F: x:

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)