CONST

WEAR CHECK

OIL ANALYSIS REPORT

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

Machine Id
**G57**
Component
**Diesel Engine**
Fluid
**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

## WEAR

All component wear rates are normal.

## CONTAMINATION

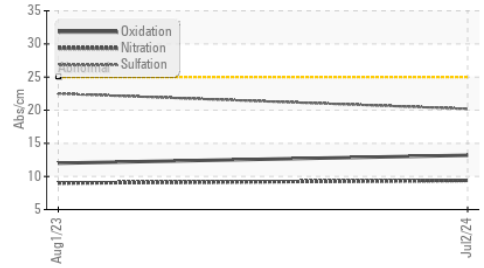
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

## FLUID CONDITION

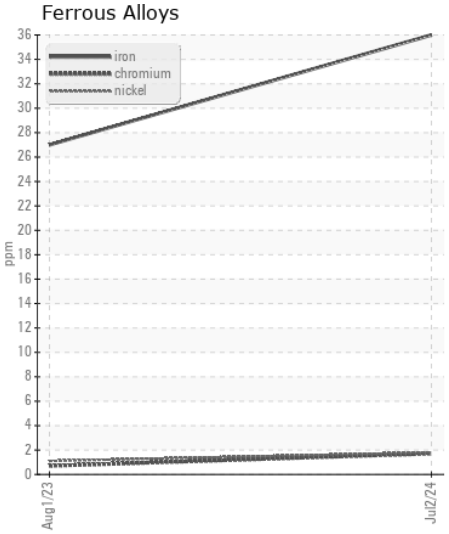
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **WC0874328** | WC0783972 | --- |
| Sample Date | | Client Info | | **02 Jul 2024** | 01 Aug 2023 | --- |
| Machine Age | hrs | Client Info | | **13218** | 12112 | --- |
| Oil Age | hrs | Client Info | | **0** | 582 | --- |
| Filter Age | hrs | Client Info | | **0** | 582 | --- |
| Oil Changed | | Client Info | | **Changed** | Changed | --- |
| Filter Changed | | Client Info | | **Changed** | N/A | --- |
| Sample Status | | | | **NORMAL** | NORMAL | --- |
| Iron | ppm | ASTM D5185m | >120 | **36** | 27 | --- |
| Chromium | ppm | ASTM D5185m | >20 | **2** | <1 | --- |
| Nickel | ppm | ASTM D5185m | >5 | **2** | 1 | --- |
| Titanium | ppm | ASTM D5185m | >2 | **<1** | <1 | --- |
| Silver | ppm | ASTM D5185m | >2 | **<1** | 0 | --- |
| Aluminum | ppm | ASTM D5185m | >20 | **24** | 12 | --- |
| Lead | ppm | ASTM D5185m | >40 | **<1** | <1 | --- |
| Copper | ppm | ASTM D5185m | >330 | **2** | 4 | --- |
| Tin | ppm | ASTM D5185m | >15 | **<1** | <1 | --- |
| Vanadium | ppm | ASTM D5185m | | **0** | <1 | --- |
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Silicon | ppm | ASTM D5185m | >25 | **6** | 5 | --- |
| Potassium | ppm | ASTM D5185m | >20 | **28** | 19 | --- |
| Fuel | | WC Method | >3.0 | **<1.0** | <1.0 | --- |
| Water | | WC Method | >0.2 | **NEG** | NEG | --- |
| Glycol | | WC Method | | **NEG** | NEG | --- |
| Soot % | % | *ASTM D7844 | >4 | **1.4** | 1.2 | --- |
| Nitration | Abs/cm | *ASTM D7624 | >20 | **9.4** | 9.0 | --- |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | **20.2** | 22.5 | --- |
| 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 | --- |
| Sodium | ppm | ASTM D5185m | >158 | **5** | 7 | --- |
| Boron | ppm | ASTM D5185m | 250 | **11** | 5 | --- |
| Barium | ppm | ASTM D5185m | 10 | **<1** | 0 | --- |
| Molybdenum | ppm | ASTM D5185m | 100 | **64** | 25 | --- |
| Manganese | ppm | ASTM D5185m | | **<1** | <1 | --- |
| Magnesium | ppm | ASTM D5185m | 450 | **804** | 121 | --- |
| Calcium | ppm | ASTM D5185m | 3000 | **1219** | 2191 | --- |
| Phosphorus | ppm | ASTM D5185m | 1150 | **1126** | 864 | --- |
| Zinc | ppm | ASTM D5185m | 1350 | **1213** | 1123 | --- |
| Sulfur | ppm | ASTM D5185m | 4250 | **3004** | 3980 | --- |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | **13.2** | 12.0 | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 8.5 | **8.2** | 4.9 | --- |
| Visc @ 100°C | cSt | ASTM D445 | 14.4 | **12.6** | 13.2 | --- |

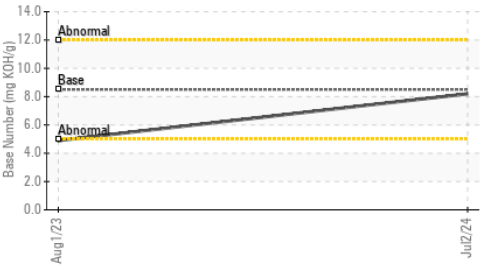
FT-IR (Direct Trend)



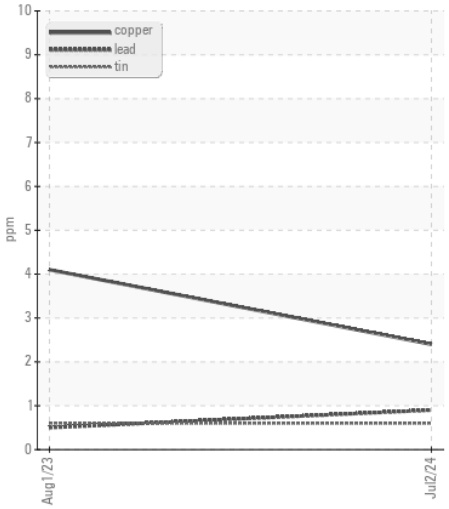

Ferrous Alloys



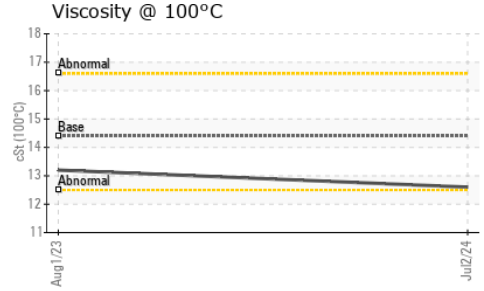

Base Number



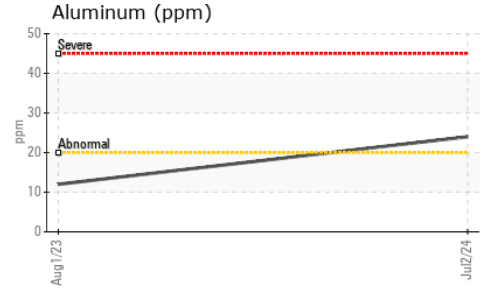

Non-ferrous Metals



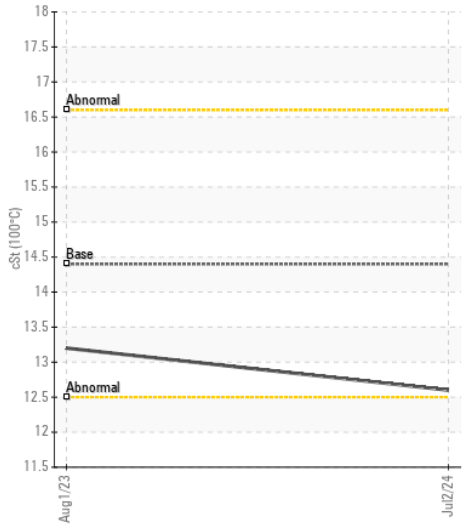

Viscosity @ 100°C



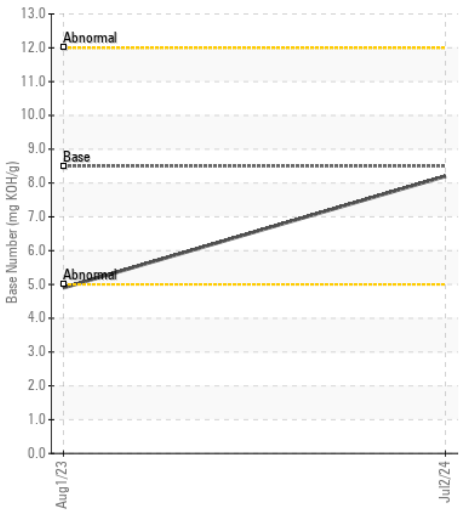

Aluminum (ppm)




Viscosity @ 100°C




Base Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : WC0874328
**Lab Number** : 06238669
**Unique Number** : 11127503
**Test Package** : CONST ( Additional Tests: TBN )

**Received** : 16 Jul 2024
**Tested** : 17 Jul 2024
**Diagnosed** : 17 Jul 2024 - Wes Davis

**Apple Valley Waste - EHT Location**
6626 Delilah Road
Egg Harbor Township, NJ
US 08234
Contact: Service Manager

*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)*

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F: