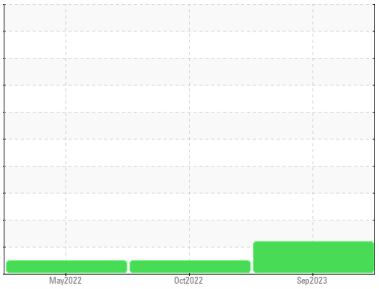
# PROBLEM SUMMARY

Sample Rating Trend

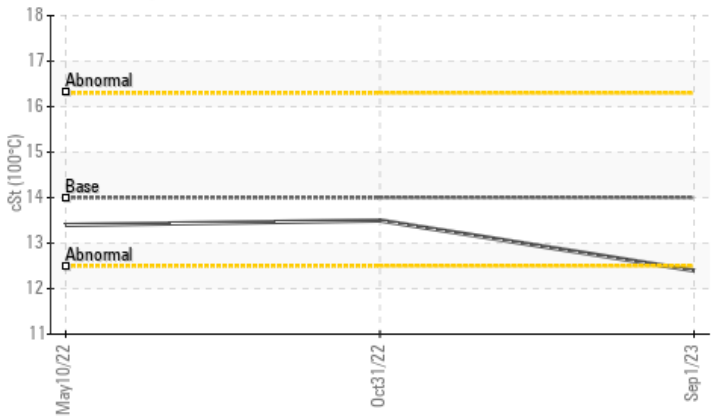



**FUEL**

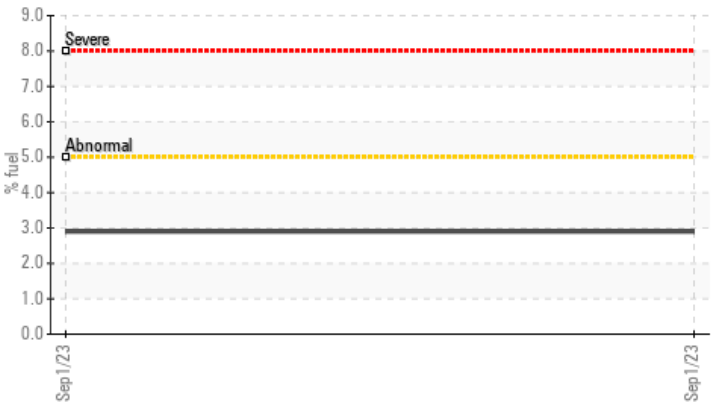
Machine Id
**40626**
Component
**Diesel Engine**
Fluid
**MOBIL DELVAC 1300 SUPER15W40 (--- GAL)**

## COMPONENT CONDITION SUMMARY

▲ Viscosity @ 100°C




▲ Fuel Dilution




## RECOMMENDATION

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

| | | | | | | |
|---|---|---|---|---|---|---|
| Sample Status | | | | **ABNORMAL** | NORMAL | NORMAL |
| Fuel | % | ASTM D3524 | >5 | ▲ **2.9** | <1.0 | <1.0 |
| Visc @ 100°C | cSt | ASTM D445 | 14 | ▲ **12.4** | 13.5 | 13.4 |

**Customer Id:** IDEEFF
**Sample No.:** IL0027079
**Lab Number:** 05965047
**Test Package:** FLEET

*To manage this report scan the QR code*

*To discuss the diagnosis or test data:*
Sean Felton +1 919-379-4092
sfelton@wearcheckusa.com

*To change component or sample information:*
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

## RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|---|---|---|---|---|
| Change Fluid | --- | --- | ? | Oil and filter change at the time of sampling has been noted. |
| Change Filter | --- | --- | ? | Oil and filter change at the time of sampling has been noted. |

## HISTORICAL DIAGNOSIS

**31 Oct 2022 Diag: Wes Davis**

NORMAL

Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the component make and model with your next sample.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

**10 May 2022 Diag: Wes Davis**

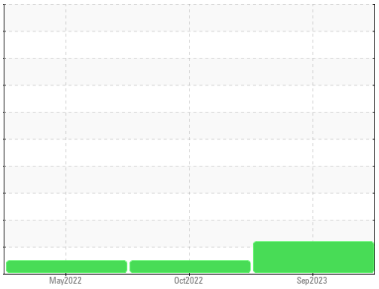
NORMAL

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

# OIL ANALYSIS REPORT

Sample Rating Trend




**FUEL**

Machine Id
**40626**
Component
**Diesel Engine**
Fluid
**MOBIL DELVAC 1300 SUPER15W40 (--- GAL)**

## DIAGNOSIS

**Recommendation**
No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

**Wear**
All component wear rates are normal.

**Contamination**
Light fuel dilution occurring.

**Fluid Condition**
Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **IL0027079** | IL0027135 | IL0015593 |
| Sample Date | | Client Info | | **01 Sep 2023** | 31 Oct 2022 | 10 May 2022 |
| Machine Age | mls | Client Info | | **173176** | 119063 | 102150 |
| Oil Age | mls | Client Info | | **26162** | 16913 | 27150 |
| Oil Changed | | Client Info | | **Changed** | Changed | Changed |
| Sample Status | | | | **ABNORMAL** | NORMAL | NORMAL |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Glycol | | WC Method | | **NEG** | NEG | NEG |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >100 | **15** | 25 | 23 |
| Chromium | ppm | ASTM D5185m | >20 | **<1** | 1 | 2 |
| Nickel | ppm | ASTM D5185m | >4 | **0** | <1 | 0 |
| Titanium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Silver | ppm | ASTM D5185m | >3 | **0** | 0 | <1 |
| Aluminum | ppm | ASTM D5185m | >20 | **7** | 11 | 12 |
| Lead | ppm | ASTM D5185m | >40 | **<1** | <1 | 2 |
| Copper | ppm | ASTM D5185m | >330 | **<1** | 1 | 3 |
| Tin | ppm | ASTM D5185m | >15 | **<1** | <1 | <1 |
| Vanadium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | **0** | 0 | 0 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | 0 | **21** | 15 | 27 |
| Barium | ppm | ASTM D5185m | 0 | **0** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | **42** | 36 | 26 |
| Manganese | ppm | ASTM D5185m | | **<1** | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 0 | **510** | 705 | 609 |
| Calcium | ppm | ASTM D5185m | | **1570** | 1405 | 1671 |
| Phosphorus | ppm | ASTM D5185m | | **713** | 792 | 696 |
| Zinc | ppm | ASTM D5185m | | **932** | 1017 | 860 |
| Sulfur | ppm | ASTM D5185m | | **2937** | 3185 | 2392 |

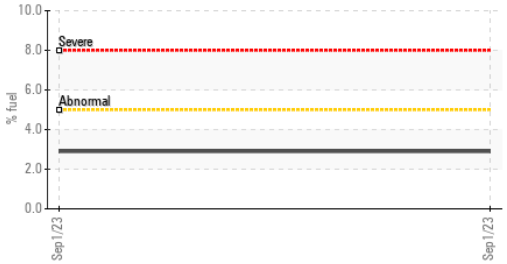
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >25 | **5** | 6 | 6 |
| Sodium | ppm | ASTM D5185m | | **1** | 2 | <1 |
| Potassium | ppm | ASTM D5185m | >20 | **11** | 22 | 21 |
| Fuel | % | ASTM D3524 | >5 | ▲ **2.9** | <1.0 | <1.0 |

| INFRA-RED | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Soot % | % | *ASTM D7844 | >3 | **0.4** | 0.3 | 0.3 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | **10.4** | 11.3 | 11.1 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | **25.1** | 24.6 | 24.7 |

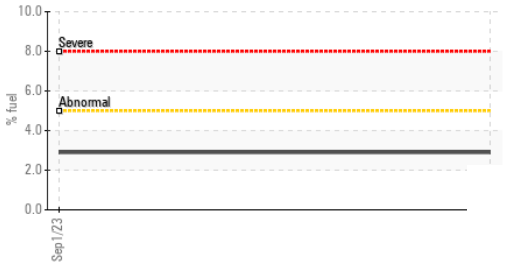
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | **26.9** | 23.6 | 24.8 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 9.4 | **7.4** | 7.5 | 5.8 |

# OIL ANALYSIS REPORT

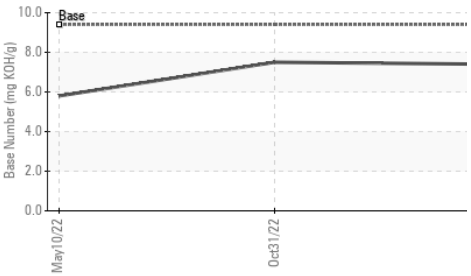
Fuel Dilution




Fuel Dilution




Base Number

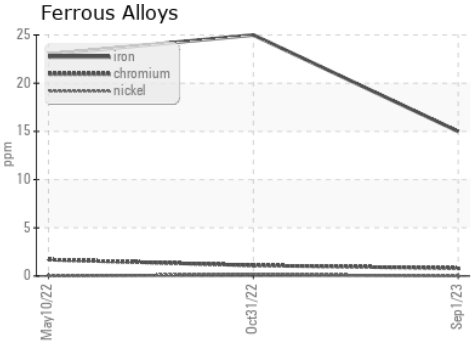



| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| 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 | NORML |
| Odor | scalar | *Visual | NORML | **NORML** | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.2 | **NEG** | NEG | NEG |
| Free Water | scalar | *Visual | | **NEG** | NEG | NEG |

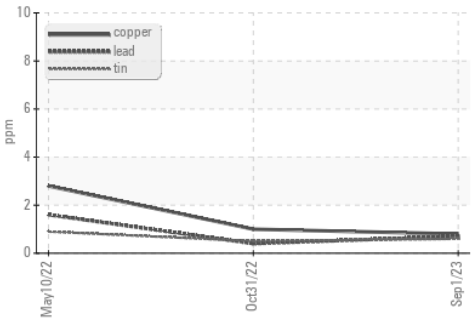
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 100°C | cSt | ASTM D445 | 14 | ▲ **12.4** | 13.5 | 13.4 |

## GRAPHS

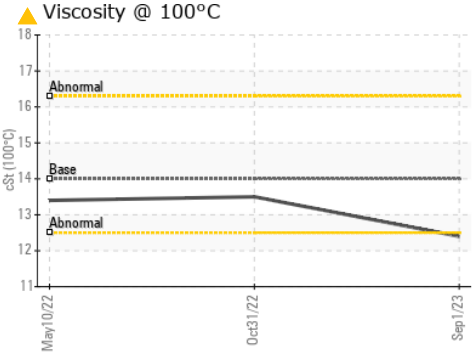
Ferrous Alloys



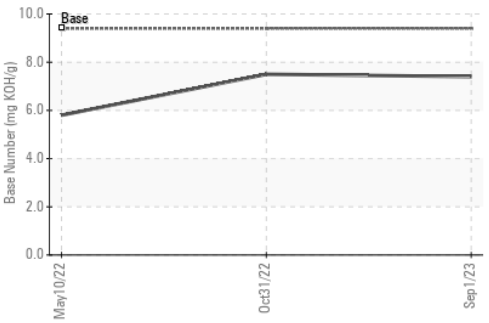

Non-ferrous Metals




Viscosity @ 100°C




Base Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : IL0027079 **Received** : 29 Sep 2023
**Lab Number** : 05965047 **Diagnosed** : 03 Oct 2023
**Unique Number** : 10671598 **Diagnostician** : Sean Felton
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

*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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