# OIL ANALYSIS REPORT

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

Machine Id
**857-4944**
Component
**Diesel Engine**
Fluid
**CHEVRON DELO 400 SAE 10W30 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

## WEAR

All component wear rates are normal.

## CONTAMINATION

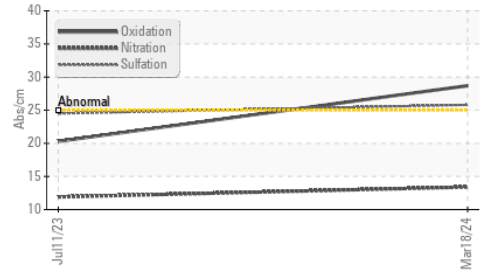
There is no indication of any contamination in the oil.

## FLUID CONDITION

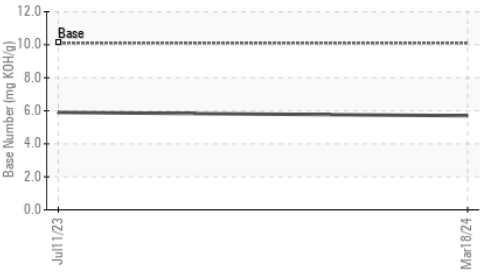
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | RPL0014248 | RPL0010327 | --- |
| Sample Date | | Client Info | | 18 Mar 2024 | 11 Jul 2023 | --- |
| Machine Age | hrs | Client Info | | 3270 | 1047 | --- |
| Oil Age | hrs | Client Info | | 0 | 0 | --- |
| Filter Age | hrs | Client Info | | 0 | 0 | --- |
| Oil Changed | | Client Info | | Not Changd | Not Changd | --- |
| Filter Changed | | Client Info | | Not Changd | Not Changd | --- |
| Sample Status | | | | NORMAL | NORMAL | --- |
| Iron | ppm | ASTM D5185m | >100 | 42 | 71 | --- |
| Chromium | ppm | ASTM D5185m | >20 | <1 | <1 | --- |
| Nickel | ppm | ASTM D5185m | >4 | <1 | 0 | --- |
| Titanium | ppm | ASTM D5185m | | <1 | <1 | --- |
| Silver | ppm | ASTM D5185m | >3 | <1 | 0 | --- |
| Aluminum | ppm | ASTM D5185m | >20 | 12 | 40 | --- |
| Lead | ppm | ASTM D5185m | >40 | <1 | <1 | --- |
| Copper | ppm | ASTM D5185m | >330 | 5 | 12 | --- |
| Tin | ppm | ASTM D5185m | >15 | 2 | 2 | --- |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | --- |
| White Metal | scalar | *Visual | NONE | NONE | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | --- |
| Silicon | ppm | ASTM D5185m | >25 | 11 | 14 | --- |
| Potassium | ppm | ASTM D5185m | >20 | 27 | 126 | --- |
| Fuel | | WC Method | >5 | <1.0 | <1.0 | --- |
| Water | | WC Method | >0.2 | NEG | NEG | --- |
| Glycol | | WC Method | | NEG | NEG | --- |
| Soot % | % | *ASTM D7844 | >3 | 0.4 | 0.3 | --- |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 13.4 | 11.9 | --- |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 25.8 | 24.5 | --- |
| 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 | | 2 | 5 | --- |
| Boron | ppm | ASTM D5185m | | 19 | 26 | --- |
| Barium | ppm | ASTM D5185m | | 1 | 0 | --- |
| Molybdenum | ppm | ASTM D5185m | | 45 | 12 | --- |
| Manganese | ppm | ASTM D5185m | | 2 | 3 | --- |
| Magnesium | ppm | ASTM D5185m | | 567 | 742 | --- |
| Calcium | ppm | ASTM D5185m | | 1731 | 1699 | --- |
| Phosphorus | ppm | ASTM D5185m | 1260 | 837 | 803 | --- |
| Zinc | ppm | ASTM D5185m | 1400 | 966 | 957 | --- |
| Sulfur | ppm | ASTM D5185m | | 2811 | 3789 | --- |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 28.7 | 20.3 | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 10.1 | 5.7 | 5.9 | --- |
| Visc @ 100°C | cSt | ASTM D445 | 11.1 | 11.7 | 12.0 | --- |

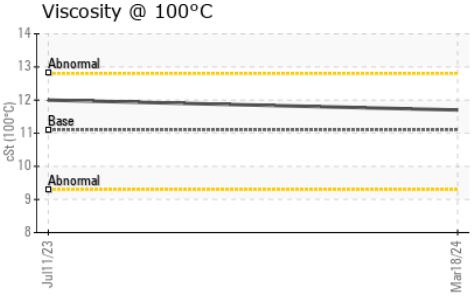
FT-IR (Direct Trend)



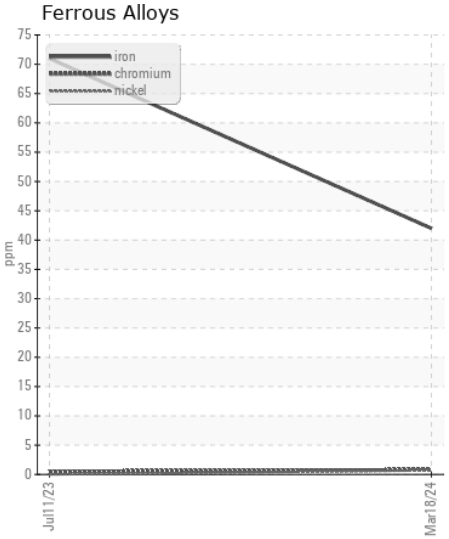

Base Number



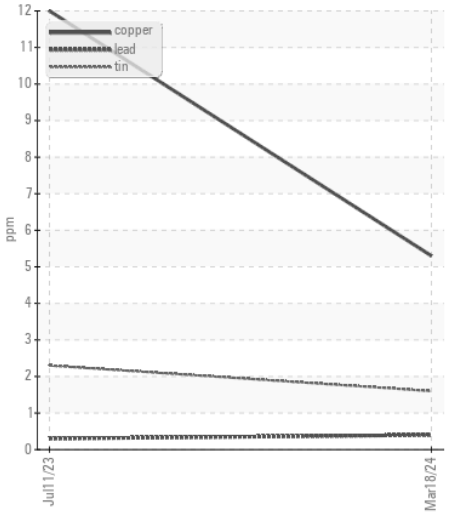

Viscosity @ 100°C



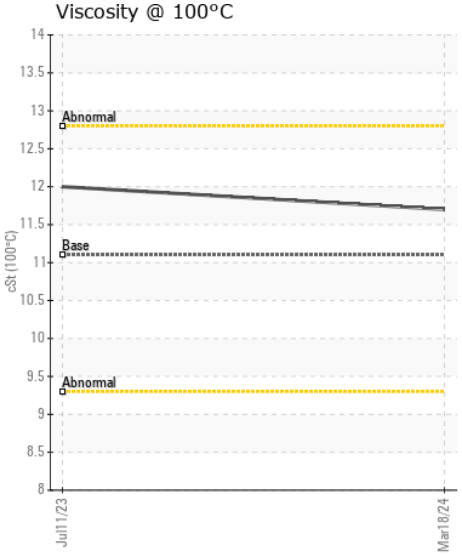

Ferrous Alloys



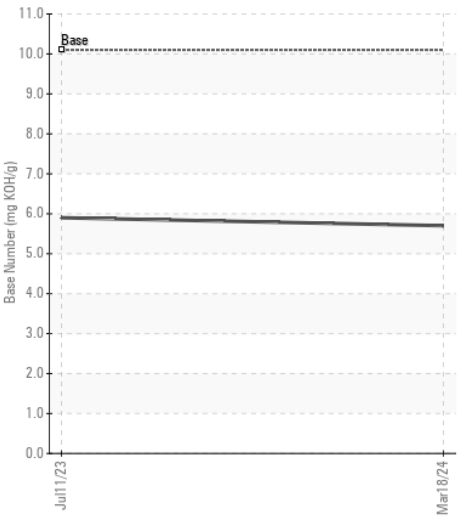

Non-ferrous Metals




Viscosity @ 100°C




Base Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : RPL0014248
**Lab Number** : 06149936
**Unique Number** : 10980014
**Test Package** : FLEET

**Received** : 16 Apr 2024
**Tested** : 17 Apr 2024
**Diagnosed** : 18 Apr 2024 - Don Baldridge

*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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