



Machine Id
SUL
Component
Port Main Engine
Fluid
CHEVRON DELO 400 LE 15W40 (--- GAL)

RECOMMENDATION

We advise that you check the fuel injection system. Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | MW0060666 | MW0031822 | MW0042694 |
| Sample Date | | Client Info | | 23 Feb 2024 | 05 Jun 2023 | 11 Aug 2022 |
| Machine Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | N/A | N/A | N/A |
| Filter Changed | | Client Info | | N/A | N/A | N/A |
| Sample Status | | | | ABNORMAL | ABNORMAL | ABNORMAL |

WEAR

The lead level has decreased, but is still abnormal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >75 | 30 | 47 | 23 |
| Chromium | ppm | ASTM D5185m | >8 | <1 | 1 | 1 |
| Nickel | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | >3 | 0 | <1 | 1 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >15 | 4 | <1 | 3 |
| Lead | ppm | ASTM D5185m | >18 | ▲ 33 | ▲ 65 | 11 |
| Copper | ppm | ASTM D5185m | >80 | 17 | 16 | 22 |
| Tin | ppm | ASTM D5185m | >14 | 3 | 4 | 3 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

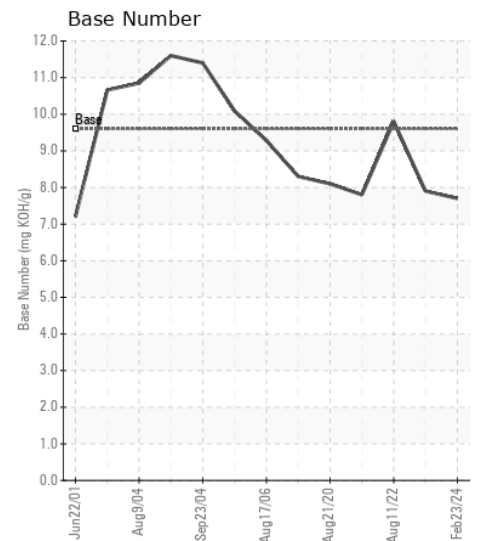
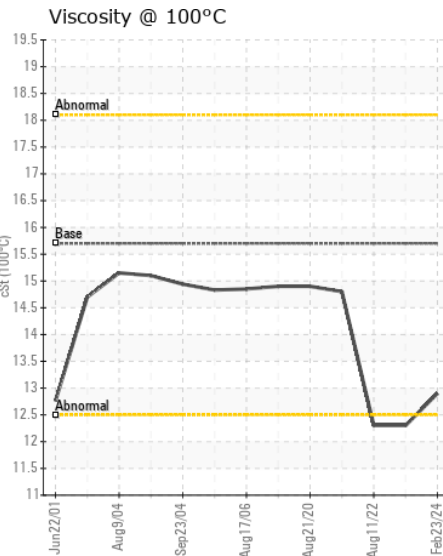
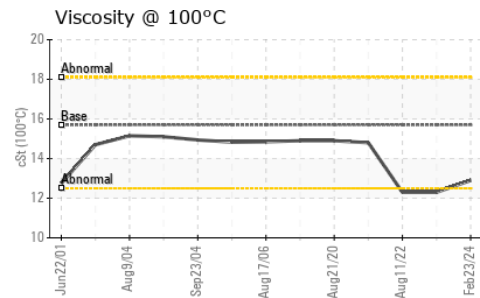
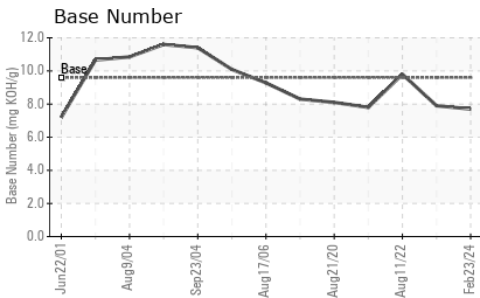
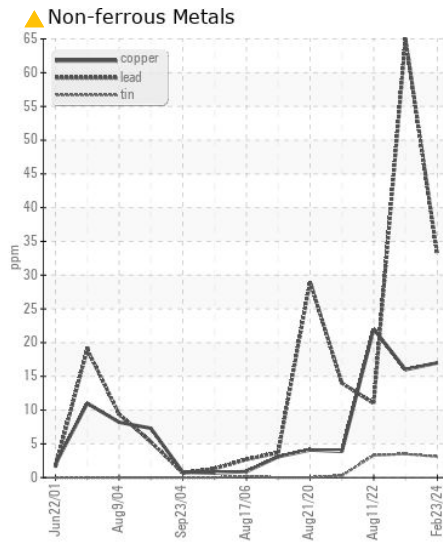
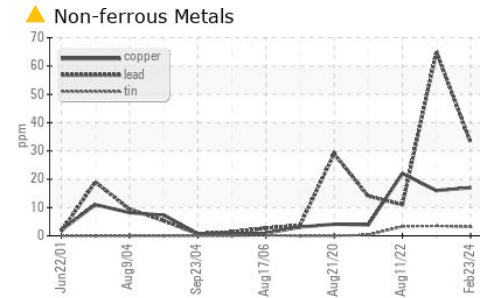
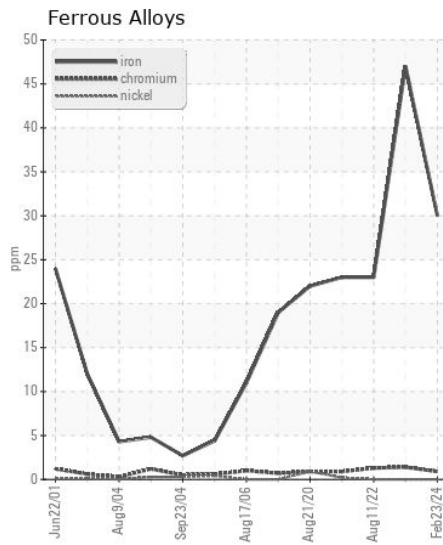
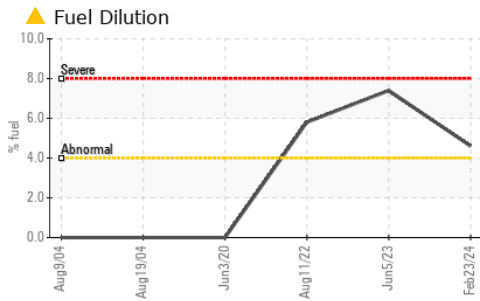
There is a moderate amount of fuel present in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|--------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >20 | 7 | 7 | 14 |
| Potassium | ppm | ASTM D5185m | >20 | 1 | 2 | <1 |
| Fuel | % | ASTM D3524 | >4.0 | ▲ 4.6 | ▲ 7.4 | ▲ 5.8 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | | 0.5 | 0.5 | 0.3 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 9.9 | 11.3 | 8.8 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 24.7 | 24.6 | 24.6 |
| 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 | >0.1 | NEG | 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 | >75 | 6 | 3 | 4 |
| Boron | ppm | ASTM D5185m | | 272 | 200 | 242 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 7 |
| Molybdenum | ppm | ASTM D5185m | | 123 | 99 | 86 |
| Manganese | ppm | ASTM D5185m | | 1 | 2 | 4 |
| Magnesium | ppm | ASTM D5185m | | 720 | 651 | 684 |
| Calcium | ppm | ASTM D5185m | | 1561 | 1555 | 1377 |
| Phosphorus | ppm | ASTM D5185m | 1200 | 732 | 654 | 686 |
| Zinc | ppm | ASTM D5185m | 1300 | 884 | 854 | 844 |
| Sulfur | ppm | ASTM D5185m | 3200 | 2445 | 2834 | 2512 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 21.4 | 22.5 | 18.3 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 9.6 | 7.7 | 7.9 | 9.8 |
| Visc @ 100°C | cSt | ASTM D445 | 15.7 | 12.9 | ▲ 12.3 | ▲ 12.3 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0060666 **Received** : 28 Feb 2024
Lab Number : 06103560 **Tested** : 04 Mar 2024
Unique Number : 10901790 **Diagnosed** : 04 Mar 2024 - Jonathan Hester
Test Package : MAR 2 (Additional Tests: PercentFuel)

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 PO BOX 585
 CASSVILLE, WI
 US 53806
 Contact: Dale Grimshaw
 Dale.Grimshaw@adm.com
 T: (608)725-2311
 F:

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)