



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

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

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | MW06048280 | MW06017172 | MW05981737 |
| Sample Date | | Client Info | | 01 Jan 2024 | 23 Nov 2023 | 16 Oct 2023 |
| Machine Age | hrs | Client Info | | 9433 | 8789 | 8204 |
| Oil Age | hrs | Client Info | | 3699 | 3055 | 2467 |
| 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 | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >75 | 9 | 8 | 15 |
| Chromium | ppm | ASTM D5185m | >8 | <1 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >2 | 0 | <1 | <1 |
| Titanium | ppm | ASTM D5185m | >3 | <1 | <1 | 1 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >15 | 2 | 3 | 3 |
| Lead | ppm | ASTM D5185m | >18 | 15 | 4 | 23 |
| Copper | ppm | ASTM D5185m | >80 | 77 | 11 | 47 |
| Tin | ppm | ASTM D5185m | >14 | <1 | <1 | 1 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

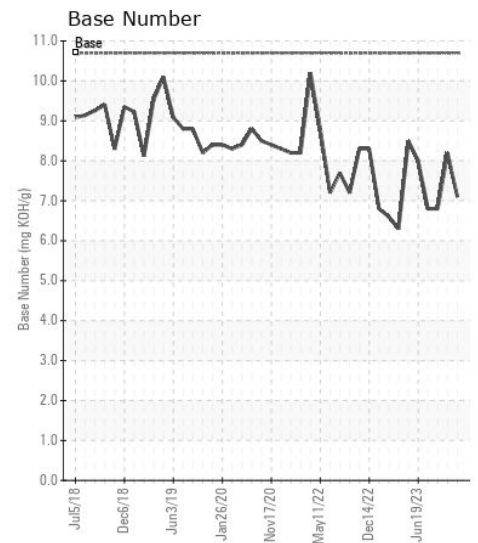
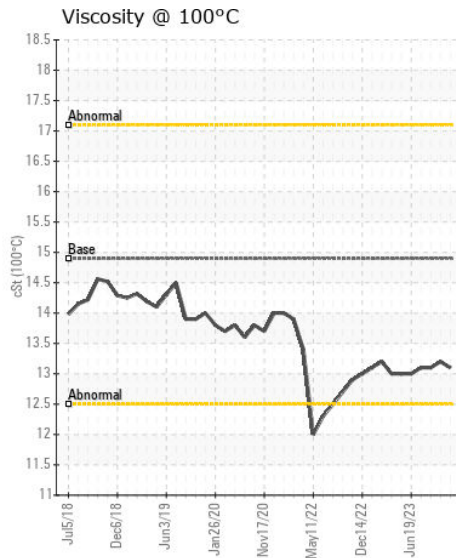
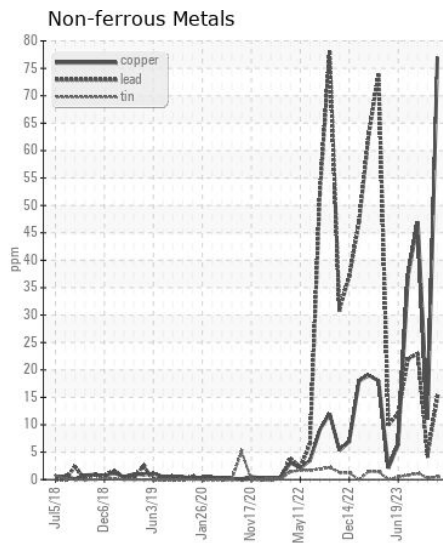
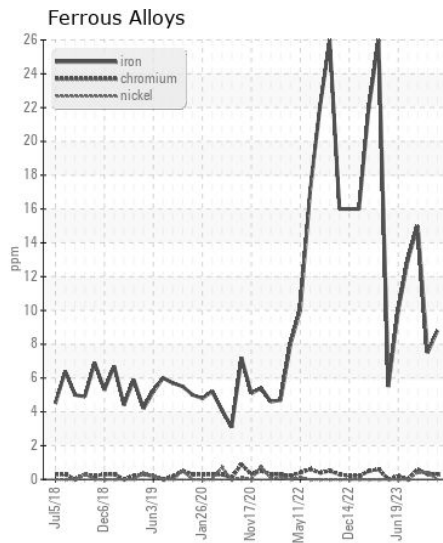
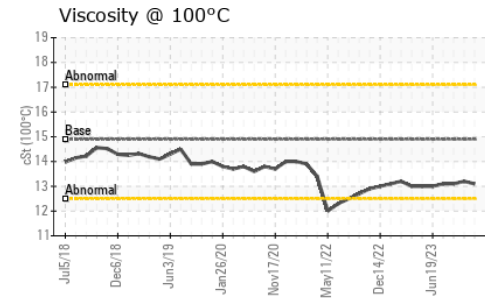
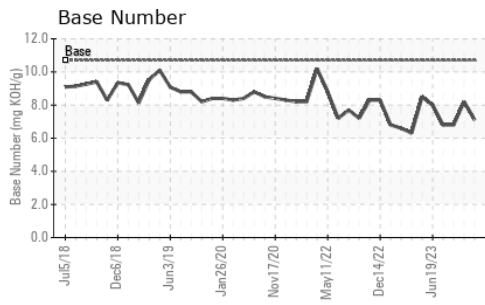
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >20 | 5 | 6 | 4 |
| Potassium | ppm | ASTM D5185m | >20 | <1 | 2 | 2 |
| Fuel | | WC Method | >4.0 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | | 0.6 | 0.4 | 0.6 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 8.4 | 7.3 | 9.1 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 23.5 | 23.5 | 23.9 |
| 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 | <1 | <1 | 0 |
| Boron | ppm | ASTM D5185m | | 226 | 290 | 224 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 10 |
| Molybdenum | ppm | ASTM D5185m | | 113 | 116 | 102 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | | 564 | 558 | 493 |
| Calcium | ppm | ASTM D5185m | | 1729 | 1433 | 1654 |
| Phosphorus | ppm | ASTM D5185m | 760 | 724 | 643 | 762 |
| Zinc | ppm | ASTM D5185m | 830 | 1016 | 866 | 921 |
| Sulfur | ppm | ASTM D5185m | 2770 | 2720 | 2790 | 2846 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 18.4 | 17.2 | 18.8 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 10.7 | 7.1 | 8.2 | 6.8 |
| Visc @ 100°C | cSt | ASTM D445 | 14.9 | 13.1 | 13.2 | 13.1 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW06048280
Lab Number : 06048280
Unique Number : 10808888
Test Package : MAR 2
Received : 29 Dec 2023
Tested : 02 Jan 2024
Diagnosed : 02 Jan 2024 - Don Baldrige

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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)