



OIL ANALYSIS REPORT

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

Machine Id
8573670
 Component
Diesel Engine
 Fluid
CHEVRON DELO 400 SAE 10W30 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | RPL0020109 | RPL0019238 | RPL0005110 |
| Sample Date | | Client Info | | 24 Jun 2024 | 27 Mar 2024 | 15 Dec 2022 |
| Machine Age | mls | Client Info | | 152599 | 140830 | 2708 |
| Oil Age | mls | Client Info | | 0 | 0 | 0 |
| Filter Age | mls | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >100 | 23 | 26 | 21 |
| Chromium | ppm | ASTM D5185m | >20 | <1 | 2 | <1 |
| Nickel | ppm | ASTM D5185m | >4 | 0 | 1 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | 12 | 11 | 10 |
| Lead | ppm | ASTM D5185m | >40 | 0 | <1 | <1 |
| Copper | ppm | ASTM D5185m | >330 | 2 | 1 | <1 |
| Tin | ppm | ASTM D5185m | >15 | 0 | 1 | <1 |
| Vanadium | ppm | ASTM D5185m | | <1 | <1 | 0 |
| 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.

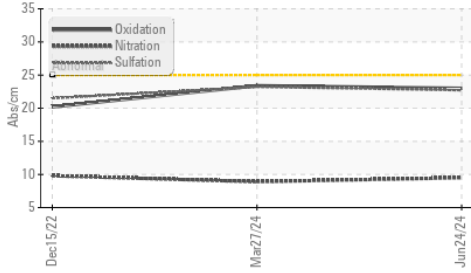
| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >25 | 12 | 13 | 13 |
| Potassium | ppm | ASTM D5185m | >20 | 8 | 6 | 6 |
| Fuel | | WC Method | >5 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 0.4 | 0.2 | 0.2 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 9.5 | 8.9 | 9.8 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 22.7 | 23.2 | 21.5 |
| 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 |

FLUID CONDITION

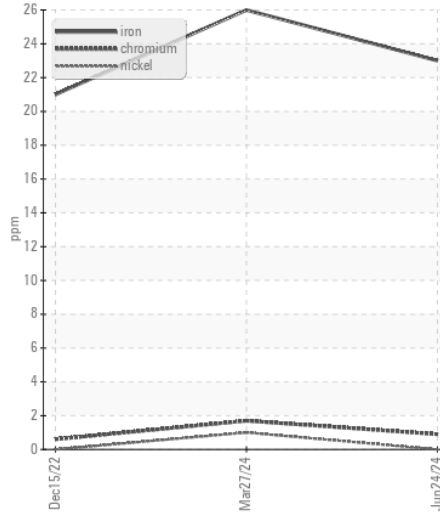
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

| | | | | | | |
|------------------|----------|-------------|------|--------------|------|------|
| Sodium | ppm | ASTM D5185m | | 4 | 5 | 4 |
| Boron | ppm | ASTM D5185m | | 34 | 73 | 58 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 53 | 52 | 51 |
| Manganese | ppm | ASTM D5185m | | <1 | 1 | <1 |
| Magnesium | ppm | ASTM D5185m | | 549 | 762 | 540 |
| Calcium | ppm | ASTM D5185m | | 1890 | 2385 | 1579 |
| Phosphorus | ppm | ASTM D5185m | 1260 | 817 | 1089 | 720 |
| Zinc | ppm | ASTM D5185m | 1400 | 936 | 1299 | 912 |
| Sulfur | ppm | ASTM D5185m | | 2722 | 3926 | 2776 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 23.0 | 23.4 | 20.2 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 10.1 | 8.9 | 8.9 | 7.8 |
| Visc @ 100°C | cSt | ASTM D445 | 11.1 | 10.6 | 10.9 | 12.4 |

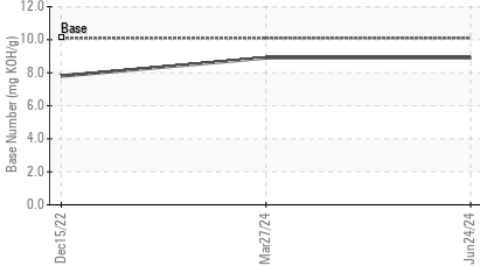
FT-IR (Direct Trend)



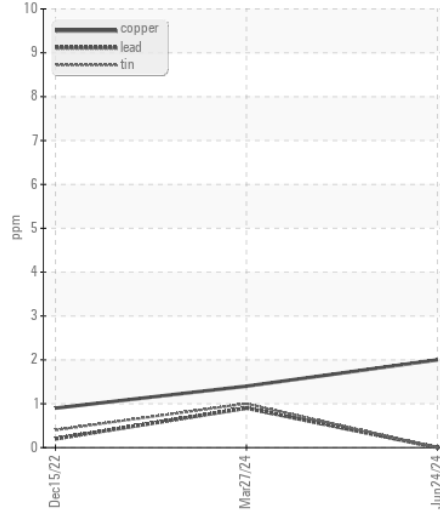
Ferrous Alloys



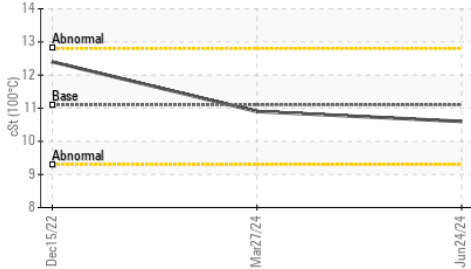
Base Number



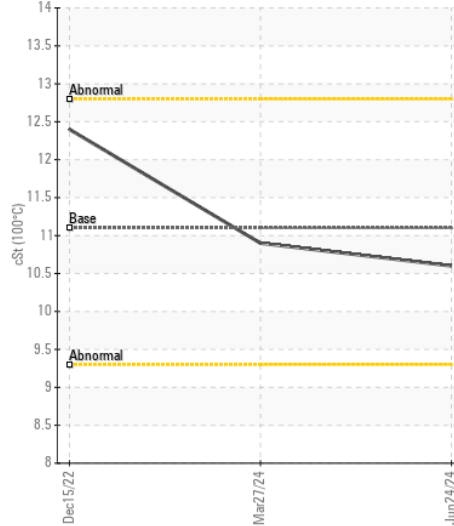
Non-ferrous Metals



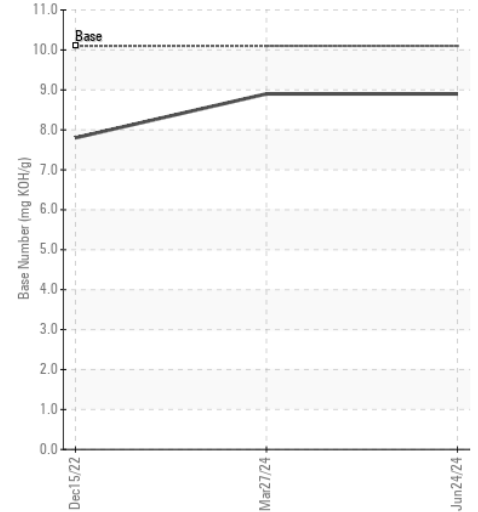
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RPL0020109 **Received** : 02 Jul 2024
Lab Number : 06225910 **Tested** : 09 Jul 2024
Unique Number : 11109403 **Diagnosed** : 09 Jul 2024 - Jonathan Hester
Test Package : FLEET

RTL PACLEASE - 7053 -NW Houston
 5808 W Sam Houston Pkwy N
 Houston, TX
 US 77041
 Contact: Danial Bothmann
 BothmannD@RushEnterprises.com
 T: (832)942-5804
 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)