# OIL ANALYSIS REPORT

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

Machine Id
**13731**
Component
**Diesel Engine**
Fluid
**CHEVRON DELO 400 SDE SAE 15W40 (--- QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

## WEAR

Metal levels are typical for a new component breaking in.

## CONTAMINATION

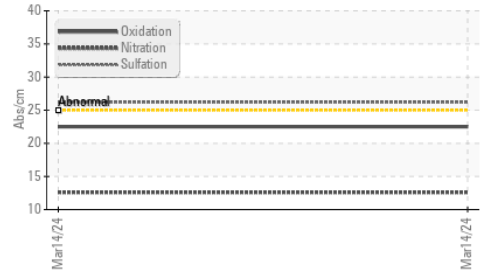
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

## FLUID CONDITION

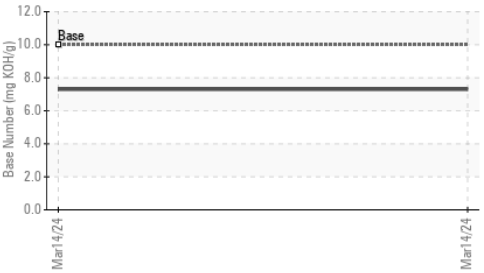
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | WC0913843 | --- | --- |
| Sample Date | | Client Info | | 14 Mar 2024 | --- | --- |
| Machine Age | mls | Client Info | | 42454 | --- | --- |
| Oil Age | mls | Client Info | | 12345 | --- | --- |
| Filter Age | mls | Client Info | | 12345 | --- | --- |
| Oil Changed | | Client Info | | Changed | --- | --- |
| Filter Changed | | Client Info | | Changed | --- | --- |
| Sample Status | | | | NORMAL | --- | --- |
| Iron | ppm | ASTM D5185m | >100 | 48 | --- | --- |
| Chromium | ppm | ASTM D5185m | >20 | 2 | --- | --- |
| Nickel | ppm | ASTM D5185m | >4 | 0 | --- | --- |
| Titanium | ppm | ASTM D5185m | | 0 | --- | --- |
| Silver | ppm | ASTM D5185m | >3 | 0 | --- | --- |
| Aluminum | ppm | ASTM D5185m | >20 | 15 | --- | --- |
| Lead | ppm | ASTM D5185m | >40 | <1 | --- | --- |
| Copper | ppm | ASTM D5185m | >330 | 1 | --- | --- |
| Tin | ppm | ASTM D5185m | >15 | <1 | --- | --- |
| Vanadium | ppm | ASTM D5185m | | <1 | --- | --- |
| White Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Silicon | ppm | ASTM D5185m | >25 | 8 | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | 41 | --- | --- |
| Fuel | | WC Method | >5 | <1.0 | --- | --- |
| Water | | WC Method | >0.2 | NEG | --- | --- |
| Glycol | | WC Method | | NEG | --- | --- |
| Soot % | % | *ASTM D7844 | >3 | 1.1 | --- | --- |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 12.6 | --- | --- |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 26.2 | --- | --- |
| Silt | scalar | *Visual | NONE | NONE | --- | --- |
| Debris | scalar | *Visual | NONE | NONE | --- | --- |
| Sand/Dirt | scalar | *Visual | NONE | NONE | --- | --- |
| Appearance | scalar | *Visual | NORML | NORML | --- | --- |
| Odor | scalar | *Visual | NORML | NORML | --- | --- |
| Emulsified Water | scalar | *Visual | >0.2 | NEG | --- | --- |
| Sodium | ppm | ASTM D5185m | | 3 | --- | --- |
| Boron | ppm | ASTM D5185m | | 103 | --- | --- |
| Barium | ppm | ASTM D5185m | | 0 | --- | --- |
| Molybdenum | ppm | ASTM D5185m | | 106 | --- | --- |
| Manganese | ppm | ASTM D5185m | | <1 | --- | --- |
| Magnesium | ppm | ASTM D5185m | | 724 | --- | --- |
| Calcium | ppm | ASTM D5185m | | 1435 | --- | --- |
| Phosphorus | ppm | ASTM D5185m | 760 | 722 | --- | --- |
| Zinc | ppm | ASTM D5185m | 800 | 919 | --- | --- |
| Sulfur | ppm | ASTM D5185m | 3000 | 2867 | --- | --- |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 22.5 | --- | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 10 | 7.3 | --- | --- |
| Visc @ 100°C | cSt | ASTM D445 | 14.6 | 13.0 | --- | --- |

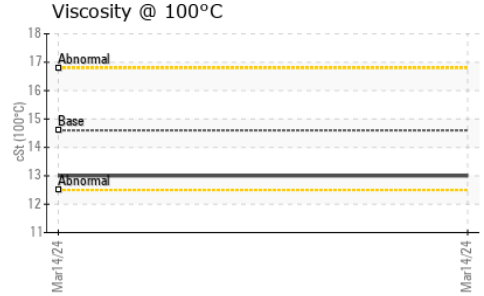
FT-IR (Direct Trend)



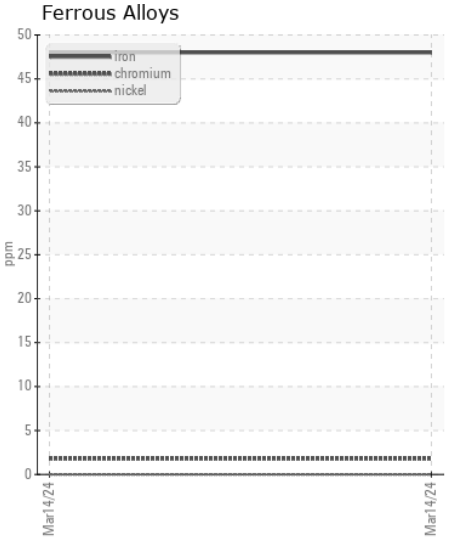

Base Number



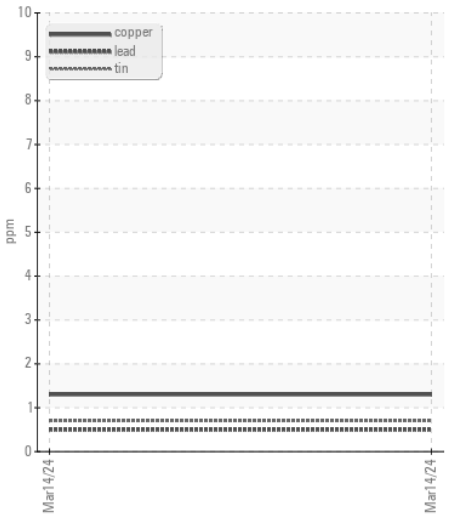

Viscosity @ 100°C



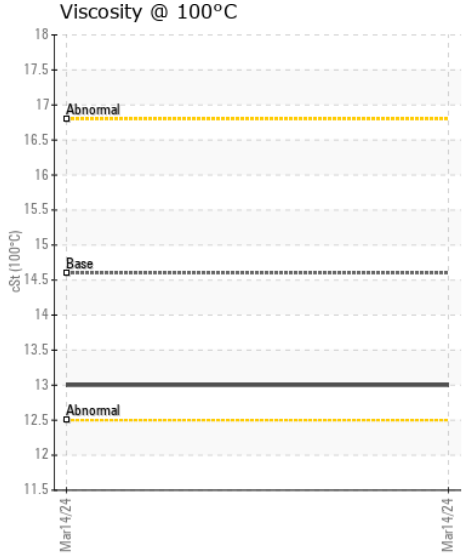

Ferrous Alloys



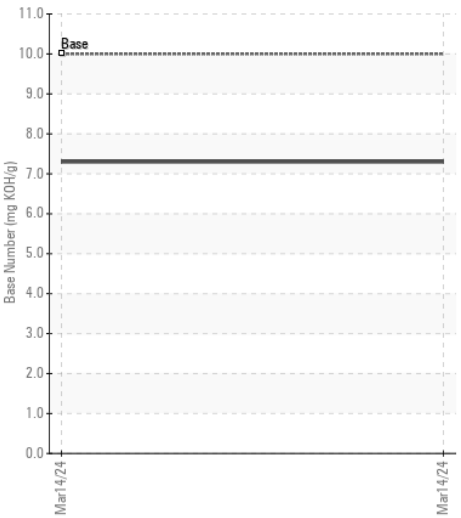

Non-ferrous Metals




Viscosity @ 100°C




Base Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : WC0913843
**Lab Number** : 06151021
**Unique Number** : 10981099
**Test Package** : FLEET

**Received** : 16 Apr 2024
**Tested** : 17 Apr 2024
**Diagnosed** : 17 Apr 2024 - Wes Davis

*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)*

**SALEM NATIONALEASE CORPORATION**
198 PARK PLAZA DRIVE
WINSTON SALEM, NC
US 27105
Contact: Audrey Hopkins
Audrey.Hopkins@salemcorp.com
T: (336)767-9642
F: x: