

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

Machine Id **FREIGHTLINER 788** Component

Diesel Engine Fluid CHEVRON DELO 400 XLE 10W30 (--- GAL)

DIAGNOSIS

Recommendation

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. The fluid was specified as CHEVRON DELO 400 XLE 10W30, however, a fluid match indicates that this fluid is SAE 40 Diesel Engine Oil. Please confirm the oil type and grade on your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

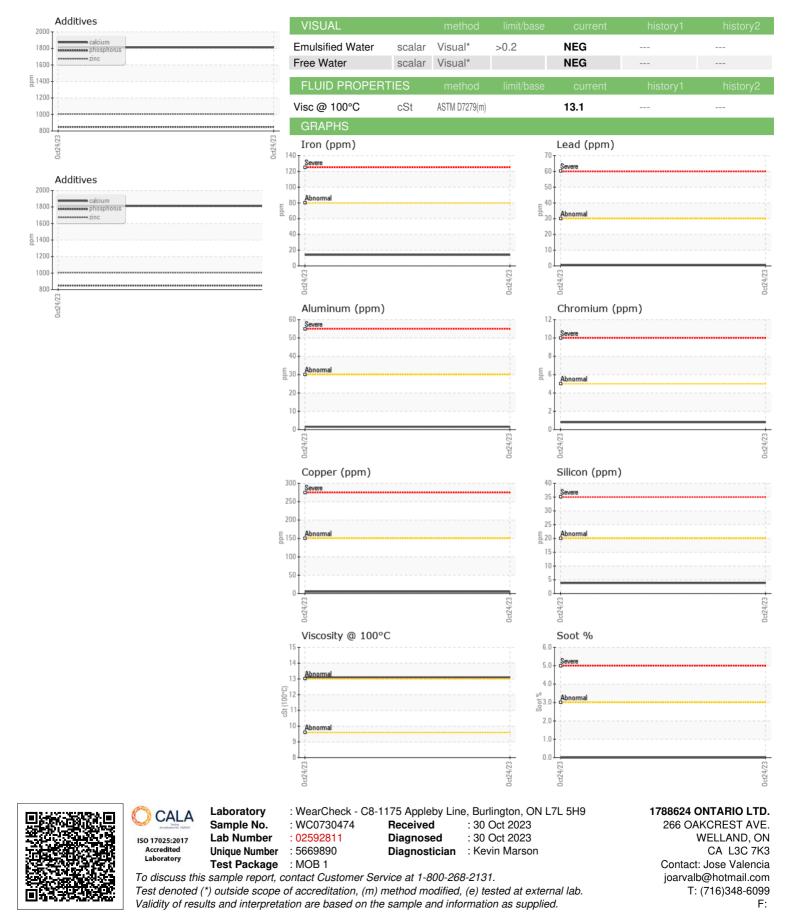
Fluid Condition

Viscosity of sample indicates oil is within SAE 40 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the oil is acceptable for the time in service.

| | | <u>I</u> | | 0ct2023 | | |
|-----------------|----------|---------------------------|------------|-------------|------------------|-----------------|
| SAMPLE INFORM | MATION | method | limit/base | current | history1 | history2 |
| Sample Number | | Client Info | | WC0730474 | | |
| Sample Date | | Client Info | | 24 Oct 2023 | | |
| Machine Age | hrs | Client Info | | 1754256 | | |
| Oil Age | hrs | Client Info | | 41253 | | |
| Oil Changed | | Client Info | | Changed | | |
| Sample Status | | | | NORMAL | | |
| CONTAMINATION | | method | limit/base | current | history1 | history2 |
| Fuel | | WC Method | >5 | <1.0 | | |
| Glycol | | WC Method | | NEG | | |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185(m) | >80 | 14 | | |
| Chromium | ppm | ASTM D5185(m) | >5 | <1 | | |
| Nickel | ppm | ASTM D5185(m) | >2 | <1 | | |
| Titanium | ppm | ASTM D5185(m) | | 0 | | |
| Silver | ppm | ASTM D5185(m) | >3 | <1 | | |
| Aluminum | ppm | ASTM D5185(m) | | 2 | | |
| Lead | ppm | ASTM D5185(m) | >30 | - <1 | | |
| Copper | ppm | ASTM D5185(m) | | 5 | | |
| Tin | ppm | ASTM D5185(m) | >5 | <1 | | |
| Antimony | ppm | ASTM D5185(m) | - | 0 | | |
| Vanadium | ppm | ASTM D5185(m) | | 0 | | |
| Beryllium | ppm | ASTM D5185(m) | | 0 | | |
| Cadmium | ppm | ASTM D5185(m) | | 0 | | |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185(m) | | 56 | | |
| Barium | ppm | ASTM D5185(m) | | <1 | | |
| Molybdenum | ppm | ASTM D5185(m) | | 13 | | |
| Manganese | ppm | ASTM D5185(m) | | 0 | | |
| Magnesium | ppm | ASTM D5185(m) | | 551 | | |
| Calcium | ppm | ASTM D5185(m) | | 1811 | | |
| Phosphorus | ppm | ASTM D5185(m) | | 849 | | |
| Zinc | ppm | ASTM D5185(m) | | 1005 | | |
| Sulfur | ppm | ASTM D5185(m) | | 2612 | | |
| Lithium | ppm | ASTM D5185(m) | | <1 | | |
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185(m) | >20 | 4 | | |
| Sodium | ppm | ASTM D5185(m) | | 3 | | |
| Potassium | ppm | ASTM D5185(m) | >20 | 3 | | |
| INFRA-RED | | method | limit/base | current | history1 | history2 |
| Soot % | % | ASTM D7844* | >3 | 0 | | |
| Nitration | Abs/cm | ASTM D7624* | >20 | 9.6 | | |
| Sulfation | Abs/.1mm | ASTM D7024 ASTM D7415* | >30 | 24.0 | | |
| | | | | | | |
| FLUID DEGRADA | | method | limit/base | current | history1 | history2 |
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | 20.9 | | |
| 6:46:05) Rev: 1 | | | | Contact/Lo | cation: Jose Val | lencia - 178WEL |



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