FLEET LUBE 360 OIL DIAGNOSTICS

# OIL ANALYSIS REPORT

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

Area
**(NH4187)**
Machine Id
**AUTOCAR 3818C**
Component
**Natural Gas Engine**
Fluid
**PETRO CANADA DURON GEO LD 15W40 (9 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

## WEAR

All component wear rates are normal.

## CONTAMINATION

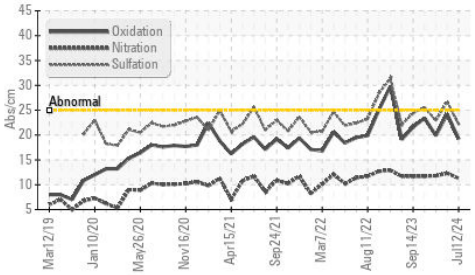
There is no indication of any contamination in the oil.

## FLUID CONDITION

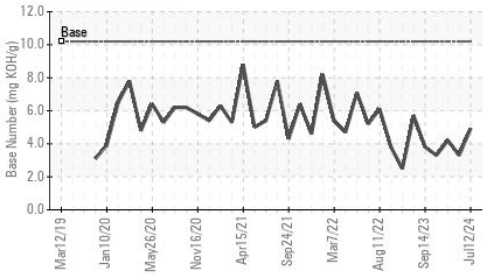
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | GFL0109614 | GFL0109610 | GFL0087448 |
| Sample Date | | Client Info | | 12 Jul 2024 | 09 Apr 2024 | 10 Jan 2024 |
| Machine Age | hrs | Client Info | | 13727 | 13222 | 12667 |
| Oil Age | hrs | Client Info | | 505 | 1123 | 568 |
| Filter Age | hrs | Client Info | | 505 | 1123 | 568 |
| Oil Changed | | Client Info | | N/A | Changed | Not Changd |
| Filter Changed | | Client Info | | N/A | Changed | Not Changd |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |
| Iron | ppm | ASTM D5185m | >50 | 6 | 8 | 8 |
| Chromium | ppm | ASTM D5185m | >4 | <1 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >2 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | | <1 | 0 | <1 |
| Silver | ppm | ASTM D5185m | >3 | <1 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >9 | 4 | 1 | 6 |
| Lead | ppm | ASTM D5185m | >30 | 2 | 11 | 3 |
| Copper | ppm | ASTM D5185m | >35 | 2 | 1 | 2 |
| Tin | ppm | ASTM D5185m | >4 | <1 | <1 | <1 |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | <1 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silicon | ppm | ASTM D5185m | >+100 | 5 | 5 | 8 |
| Potassium | ppm | ASTM D5185m | >20 | 3 | <1 | 0 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | | 0 | 0.1 | 0 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 11.3 | 12.3 | 11.8 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 22.2 | 26.7 | 22.9 |
| 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 |
| Sodium | ppm | ASTM D5185m | | 10 | 18 | 5 |
| Boron | ppm | ASTM D5185m | 50 | 11 | 13 | 7 |
| Barium | ppm | ASTM D5185m | 5 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 50 | 53 | 56 | 52 |
| Manganese | ppm | ASTM D5185m | 0 | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 560 | 549 | 617 | 574 |
| Calcium | ppm | ASTM D5185m | 1510 | 1617 | 1777 | 1563 |
| Phosphorus | ppm | ASTM D5185m | 780 | 750 | 795 | 721 |
| Zinc | ppm | ASTM D5185m | 870 | 988 | 1026 | 1010 |
| Sulfur | ppm | ASTM D5185m | 2040 | 2348 | 2595 | 2320 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 19.2 | 24.2 | 19.9 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 10.2 | 4.9 | 3.3 | 4.2 |
| Visc @ 100°C | cSt | ASTM D445 | 15.1 | 14.7 | 14.5 | 14.8 |

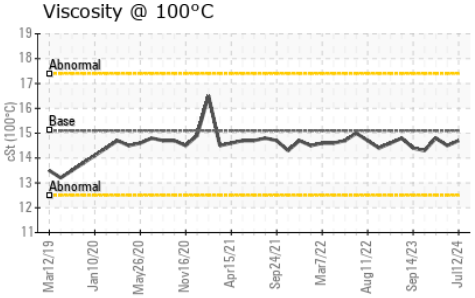
FT-IR (Direct Trend)



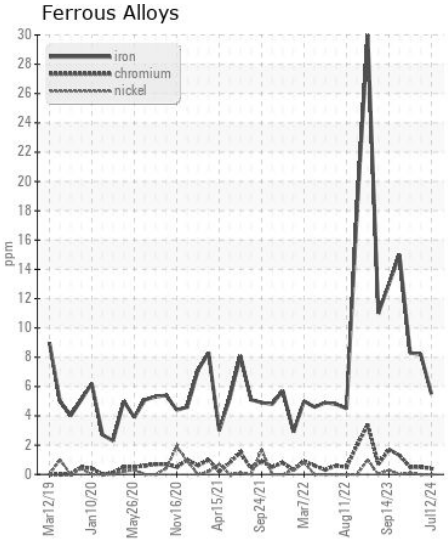

Base Number



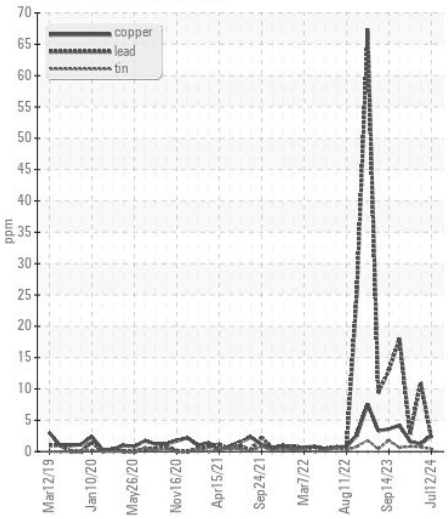

Viscosity @ 100°C



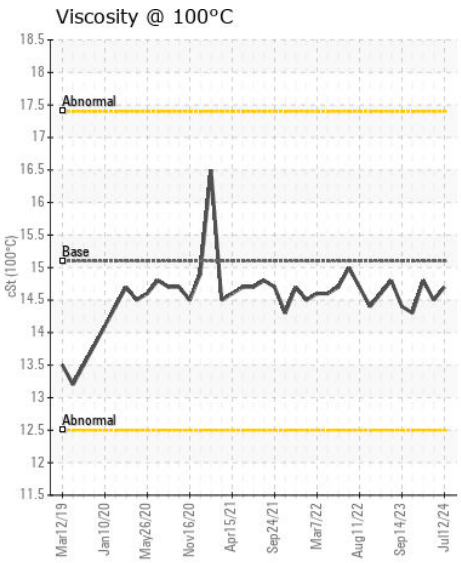

Ferrous Alloys



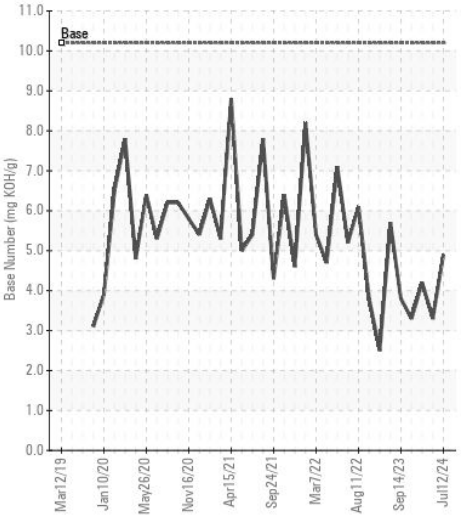

Non-ferrous Metals




Viscosity @ 100°C




Base Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : GFL0109614
**Lab Number** : 06239857
**Unique Number** : 11128691
**Test Package** : FLEET

**Received** : 18 Jul 2024
**Tested** : 18 Jul 2024
**Diagnosed** : 18 Jul 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)*

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