FLEET LUBE 360 OIL DIAGNOSTICS

# OIL ANALYSIS REPORT

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

Machine Id
**11217**
Component
**Diesel Engine**
Fluid
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

## WEAR

All component wear rates are normal.

## CONTAMINATION

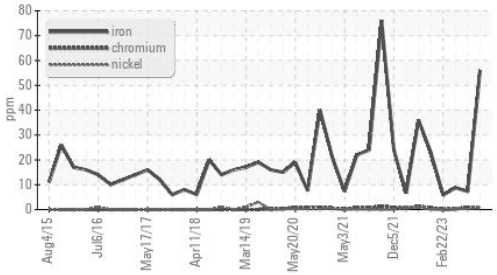
There is no indication of any contamination in the oil.

## FLUID CONDITION

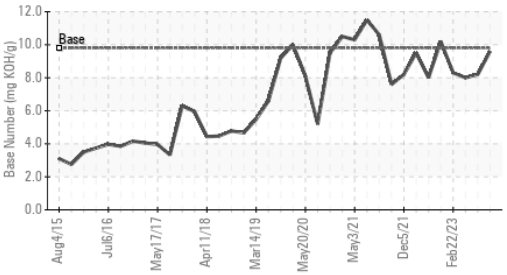
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | GFL0082431 | GFL0082449 | GFL0082402 |
| Sample Date | | Client Info | | 05 Jan 2024 | 07 Sep 2023 | 22 Jun 2023 |
| Machine Age | hrs | Client Info | | 69881 | 17468 | 0 |
| Oil Age | hrs | Client Info | | 69881 | 615 | 0 |
| Filter Age | hrs | Client Info | | 69881 | 615 | 0 |
| Oil Changed | | Client Info | | Changed | Changed | N/A |
| Filter Changed | | Client Info | | Changed | Changed | N/A |
| Sample Status | | | | ATTENTION | NORMAL | NORMAL |
| Iron | ppm | ASTM D5185m | >100 | ▲ 56 | 7 | 9 |
| Chromium | ppm | ASTM D5185m | >20 | <1 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >4 | 1 | <1 | <1 |
| Titanium | ppm | ASTM D5185m | | <1 | <1 | 0 |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | 2 | <1 | <1 |
| Lead | ppm | ASTM D5185m | >40 | 1 | 1 | <1 |
| Copper | ppm | ASTM D5185m | >330 | 1 | <1 | <1 |
| Tin | ppm | ASTM D5185m | >15 | 1 | 2 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silicon | ppm | ASTM D5185m | >25 | 4 | 3 | 3 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | 2 | <1 |
| 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 | 1.3 | 0.4 | 0.4 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 8.3 | 6.7 | 7.5 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 20.7 | 18.8 | 20.3 |
| 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 |
| Sodium | ppm | ASTM D5185m | | 0 | 2 | 0 |
| Boron | ppm | ASTM D5185m | 0 | 3 | 0 | 2 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 44 | 0 |
| Molybdenum | ppm | ASTM D5185m | 60 | 58 | 57 | 68 |
| Manganese | ppm | ASTM D5185m | 0 | 2 | 1 | <1 |
| Magnesium | ppm | ASTM D5185m | 1010 | 935 | 909 | 1036 |
| Calcium | ppm | ASTM D5185m | 1070 | 1115 | 993 | 1191 |
| Phosphorus | ppm | ASTM D5185m | 1150 | 934 | 954 | 1149 |
| Zinc | ppm | ASTM D5185m | 1270 | 1221 | 1165 | 1381 |
| Sulfur | ppm | ASTM D5185m | 2060 | 3318 | 3278 | 3710 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 15.4 | 15.4 | 17.7 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 9.8 | 9.6 | 8.2 | 8.0 |
| Visc @ 100°C | cSt | ASTM D445 | 15.4 | 13.9 | 13.6 | 13.1 |

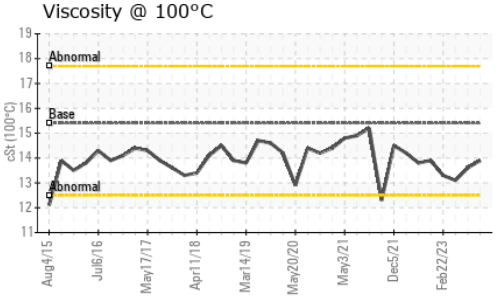
Ferrous Alloys



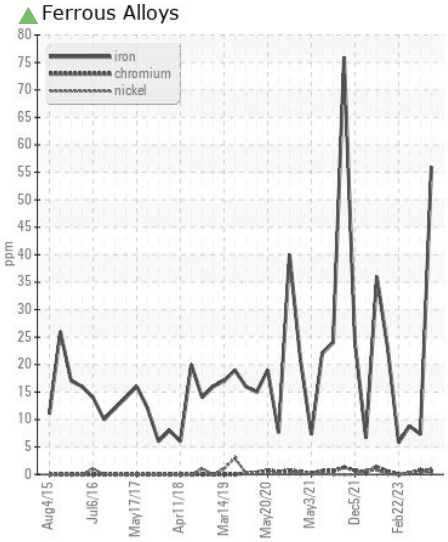

Base Number



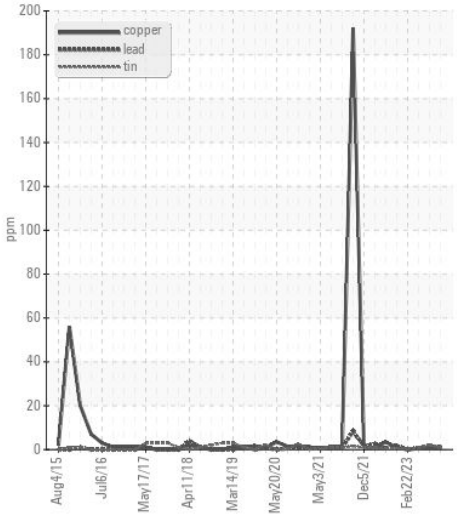

Viscosity @ 100°C



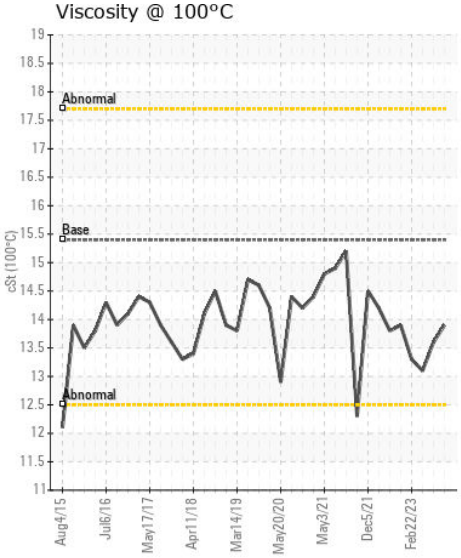

Ferrous Alloys




Non-ferrous Metals




Viscosity @ 100°C

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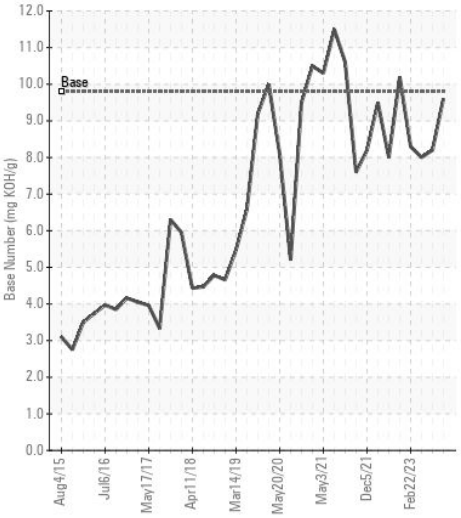


Certificate L2367

| | | | |
|---|---|---|---|
| **Laboratory** | : WearCheck USA - 501 Madison Ave., Cary, NC 27513 | | |
| **Sample No.** | : GFL0082431 | **Recieved** | : 09 Jan 2024 |
| **Lab Number** | : 06055195 | **Diagnosed** | : 10 Jan 2024 |
| **Unique Number** | : 10821144 | **Diagnostician** | : Don Baldridge |
| **Test Package** | : FLEET | | |

*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)*

**GFL Environmental - 007 - Brunswick**
2809 Galloway Road
Bolivia, NC
US 28422
Contact: DONALD CRAVEN
dcraven@gflenv.com
T:
F: (910)253-4179