



OIL ANALYSIS REPORT

Sample Rating Trend

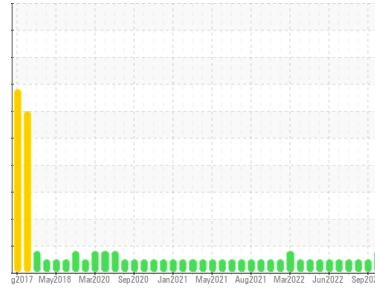
WEAR

Area
(P633836)

Machine Id
3763C

Component
Natural Gas Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (30 QTS)



DIAGNOSIS

▲ Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

▲ Wear

The chromium level is abnormal. All other 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.

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | GFL0101777 | GFL0081014 | GFL0058565 |
| Sample Date | Client Info | | 24 Jan 2024 | 21 Sep 2023 | 06 Dec 2022 |
| Machine Age | hrs | Client Info | 21125 | 20979 | 20913 |
| Oil Age | hrs | Client Info | 600 | 600 | 600 |
| Oil Changed | Client Info | | Changed | Changed | Changed |
| Sample Status | | | ABNORMAL | NORMAL | NORMAL |

CONTAMINATION

| | method | limit/base | current | history1 | history2 |
|-------|-----------|------------|------------|----------|----------|
| Water | WC Method | >0.1 | NEG | NEG | NEG |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|----------|--------|-----------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m >50 | 34 | 29 | 10 |
| Chromium | ppm | ASTM D5185m >4 | ▲ 6 | 5 | 1 |
| Nickel | ppm | ASTM D5185m >2 | <1 | 1 | 0 |
| Titanium | ppm | ASTM D5185m | <1 | <1 | 0 |
| Silver | ppm | ASTM D5185m >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m >9 | 4 | 7 | 0 |
| Lead | ppm | ASTM D5185m >30 | <1 | <1 | <1 |
| Copper | ppm | ASTM D5185m >35 | 4 | 20 | <1 |
| Tin | ppm | ASTM D5185m >4 | 1 | <1 | 0 |
| Vanadium | ppm | ASTM D5185m | <1 | <1 | 0 |
| Cadmium | ppm | ASTM D5185m | 0 | 0 | 0 |

ADDITIVES

| | method | limit/base | current | history1 | history2 |
|------------|--------|------------------|-------------|----------|----------|
| Boron | ppm | ASTM D5185m 50 | 9 | 23 | 4 |
| Barium | ppm | ASTM D5185m 5 | 0 | 0 | 2 |
| Molybdenum | ppm | ASTM D5185m 50 | 50 | 51 | 36 |
| Manganese | ppm | ASTM D5185m 0 | 1 | 1 | <1 |
| Magnesium | ppm | ASTM D5185m 560 | 539 | 545 | 516 |
| Calcium | ppm | ASTM D5185m 1510 | 1577 | 1592 | 615 |
| Phosphorus | ppm | ASTM D5185m 780 | 742 | 772 | 571 |
| Zinc | ppm | ASTM D5185m 870 | 894 | 957 | 709 |
| Sulfur | ppm | ASTM D5185m 2040 | 1890 | 2653 | 2146 |

CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|-------------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m >+100 | 21 | 13 | 4 |
| Sodium | ppm | ASTM D5185m | 7 | 7 | 2 |
| Potassium | ppm | ASTM D5185m >20 | <1 | 15 | <1 |

INFRA-RED

| | method | limit/base | current | history1 | history2 |
|-----------|----------|-----------------|-------------|----------|----------|
| Soot % | % | *ASTM D7844 | 0.1 | 0 | 0.1 |
| Nitration | Abs/cm | *ASTM D7624 >20 | 11.9 | 8.2 | 10.5 |
| Sulfation | Abs/.1mm | *ASTM D7415 >30 | 19.9 | 19.1 | 23.1 |

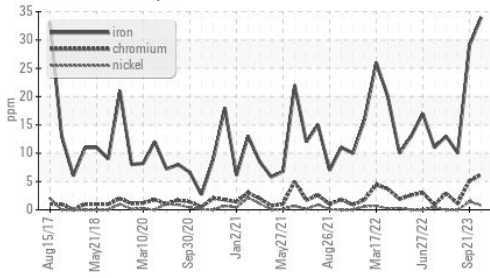
FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 |
|------------------|----------|-----------------|-------------|----------|----------|
| Oxidation | Abs/.1mm | *ASTM D7414 >25 | 18.4 | 16.6 | 18.3 |
| Base Number (BN) | mg KOH/g | ASTM D2896 10.2 | 6.5 | 6.9 | 6.9 |

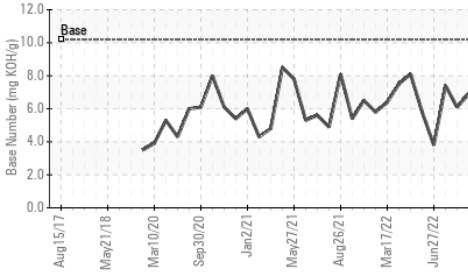


OIL ANALYSIS REPORT

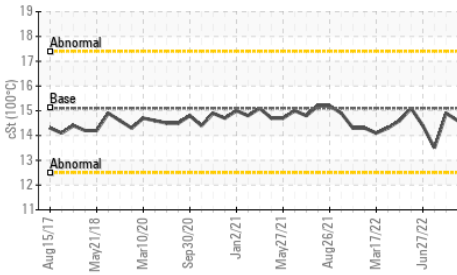
▲ Ferrous Alloys



Base Number



Viscosity @ 100°C

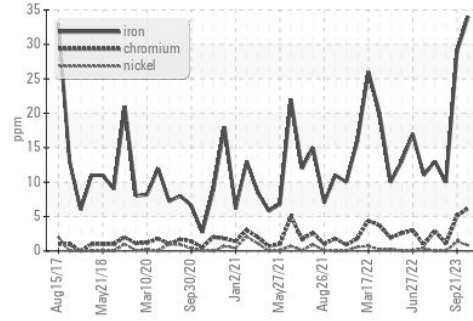


| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.1 | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG |

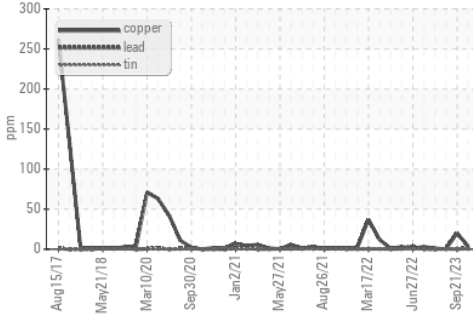
| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 100°C | cSt | ASTM D445 | 15.1 | 14.9 | 14.6 |

GRAPHS

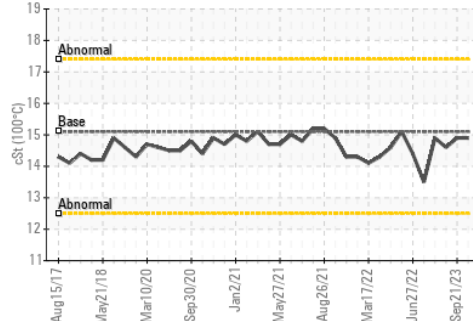
▲ Ferrous Alloys



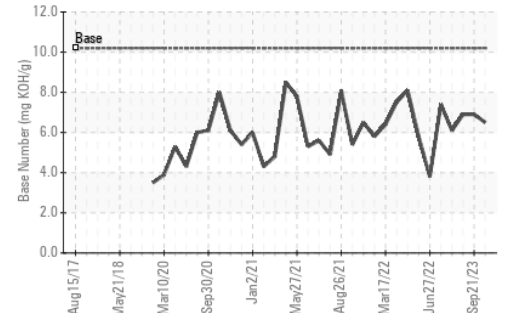
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0101777
 Lab Number : 06071473
 Unique Number : 10848150
 Test Package : FLEET

GFL Environmental - 030 - Conway Myrtle Beach
 3010 HWY 378
 Conway, SC
 US 29527
 Contact: ARCILIO RUEZ
 aruiz@gflenv.com

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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F: