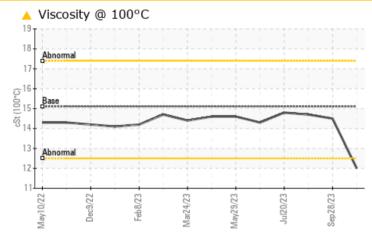


CHECK

Machine Id 731118

Component Natural Gas Engine Fluid PETRO CANADA DURON GEO LD 15W40 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

| PROBLEMATIC | C TEST | RESULT | S | | | |
|---------------|--------|-----------|------|-----------|--------|--------|
| Sample Status | | | | ATTENTION | NORMAL | NORMAL |
| Visc @ 100°C | cSt | ASTM D445 | 15.1 | <u> </u> | 14.5 | 14.7 |

Customer Id: GFL836 Sample No.: GFL0095101 Lab Number: 05995257 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data: Jonathan Hester +1 919-379-4092 x4092 <u>jhester@wearcheckusa.com</u>

To change component or sample information: Customer Service +1 1-800-237-1369 <u>customerservice@wearcheck.com</u>

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

28 Sep 2023 Diag: Wes Davis



Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

04 Sep 2023 Diag: Wes Davis



Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

20 Jul 2023 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



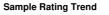




view report



OIL ANALYSIS REPORT



VISCOSITY

Machine Id 731118

Component Natural Gas Engine

Fluid

PETRO CANADA DURON GEO LD 15W40 (--- GAL)

DIAGNOSIS

A Recommendation

No corrective action is recommended at this time. 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.

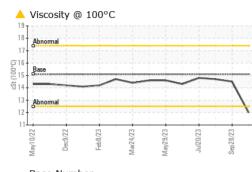
Fluid Condition

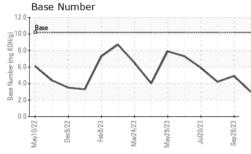
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

| SAMPLE INFOR | MATION | method | limit/base | current | history1 | history2 |
|--|---|--|--|---|---|--|
| Sample Number | | Client Info | | GFL0095101 | GFL0090699 | GFL0090648 |
| Sample Date | | Client Info | | 26 Oct 2023 | 28 Sep 2023 | 04 Sep 2023 |
| Machine Age | hrs | Client Info | | 5714 | 5541 | 5395 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Not Changd | Not Changd | Not Changd |
| Sample Status | | | | ATTENTION | NORMAL | NORMAL |
| WEAR METAL | S | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >50 | 29 | 8 | 10 |
| Chromium | ppm | ASTM D5185m | >4 | 1 | <1 | 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 | 6 | <1 | 2 |
| Lead | ppm | ASTM D5185m | >30 | 11 | 2 | <1 |
| Copper | ppm | ASTM D5185m | >35 | 15 | 2 | <1 |
| Tin | ppm | ASTM D5185m | >4 | 2 | <1 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | nnm | ASTM D5185m | 50 | - | | 11 |
| DOIOII | ppm | ASTIVI DOTODITI | 50 | 7 | 11 | 11 |
| Barium | ppm | ASTM D5185m | | 4 | 0 | 0 |
| | | | | | | |
| Barium | ppm | ASTM D5185m | 5 50 | 4 | 0 | 0 |
| Barium Molybdenum | ppm ppm | ASTM D5185m ASTM D5185m | 5 50 | 4 51 | 0 52 | 0 54 |
| Barium Molybdenum Manganese | ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m | 5 50 0 | 4 51 4 | 0 52 <1 | 0 54 <1 |
| Barium Molybdenum Manganese Magnesium | ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 5 50 0 560 | 4 51 4 780 | 0 52 <1 553 | 0 54 <1 583 |
| Barium Molybdenum Manganese Magnesium Calcium | ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 5 50 0 560 1510 | 4 51 4 780 1147 | 0 52 <1 553 1633 | 0 54 <1 583 1693 |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus | ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 5 50 0 560 1510 780 | 4 51 4 780 1147 722 | 0 52 <1 553 1633 685 | 0 54 <1 583 1693 697 |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc | ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 5 50 0 560 1510 780 870 | 4 51 4 780 1147 722 865 | 0 52 <1 553 1633 685 937 | 0 54 <1 583 1693 697 980 |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur | ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 5 50 0 560 1510 780 870 2040 | 4 51 4 780 1147 722 865 2021 | 0 52 <1 553 1633 685 937 2377 | 0 54 <1 583 1693 697 980 2827 |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 5 50 0 560 1510 780 870 2040 limit/base | 4 51 4 780 1147 722 865 2021 current | 0 52 <1 553 1633 685 937 2377 history1 | 0 54 <1 583 1693 697 980 2827 history2 |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon | ppm ppm ppm ppm ppm ppm ppm ppm TS | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 5 50 0 560 1510 780 870 2040 Limit/base >+100 | 4 51 4 780 1147 722 865 2021 current 79 | 0 52 <1 553 1633 685 937 2377 history1 4 | 0 54 <1 583 1693 697 980 2827 history2 4 |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium | ppm ppm ppm ppm ppm ppm ppm ppm TS | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m | 5 50 0 560 1510 780 870 2040 Limit/base >+100 | 4 51 4 780 1147 722 865 2021 current 79 8 | 0 52 <1 553 1633 685 937 2377 history1 4 8 | 0 54 <1 583 1693 697 980 2827 history2 4 7 |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium | ppm ppm ppm ppm ppm ppm ppm ppm TS | ASTM D5185m ASTM D5185m | 5 50 0 560 1510 780 870 2040 limit/base >+100 >20 | 4 51 4 780 1147 722 865 2021 current 79 8 8 8 | 0 52 <1 553 1633 685 937 2377 history1 4 8 1 | 0 54 <1 583 1693 697 980 2827 history2 4 7 0 |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED | ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm | ASTM D5185m ASTM D5185m | 5 50 0 560 1510 780 870 2040 limit/base >+100 >20 | 4 51 4 780 1147 722 865 2021 current 79 8 8 8 8 202 | 0 52 <1 553 1633 685 937 2377 history1 4 8 1 1 history1 | 0 54 <1 583 1693 697 980 2827 history2 4 7 0 0 |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % | ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm | ASTM D5185m ASTM D5185m *ASTM D7844 | 5 50 0 560 1510 780 870 2040 limit/base >+100 } 200 limit/base | 4 51 4 780 1147 722 865 2021 current 79 8 8 8 8 2021 | 0 52 <1 553 1633 685 937 2377 history1 4 8 1 1 history1 0 | 0 54 <1 583 697 980 2827 history2 4 7 0 0 history2 0.1 |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration | ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm | ASTM D5185m ASTM D5185m | 5 50 0 560 1510 780 870 2040 limit/base >+100 >20 limit/base | 4 51 4 780 1147 722 865 2021 current 79 8 8 8 8 current 0 13.0 | 0 52 <1 553 1633 685 937 2377 history1 4 8 1 1 history1 0 0 10.5 | 0 54 <1 583 1693 697 980 2827 history2 4 7 0 0 history2 0.1 10.8 |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m | 5 50 0 560 1510 780 870 2040 Iimit/base >+100 | 4 51 4 780 1147 722 865 2021 current 79 8 8 8 8 current 0 13.0 26.9 current | 0 52 <1 553 1633 685 937 2377 history1 4 8 1 1 history1 0 10.5 21.0 | 0 54 <1 583 1693 697 980 2827 history2 4 7 0 history2 0.1 10.8 21.9 |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation | ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm | ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415 | 5 50 0 560 1510 780 870 2040 limit/base >+100 | 4 51 4 780 1147 722 865 2021 current 79 8 8 8 8 8 current 0 13.0 26.9 | 0 52 <1 553 1633 685 937 2377 history1 4 8 1 1 history1 0 10.5 21.0 history1 | 0 54 <1 583 1693 697 980 2827 history2 4 7 0 history2 0.1 10.8 21.9 history2 |



OIL ANALYSIS REPORT

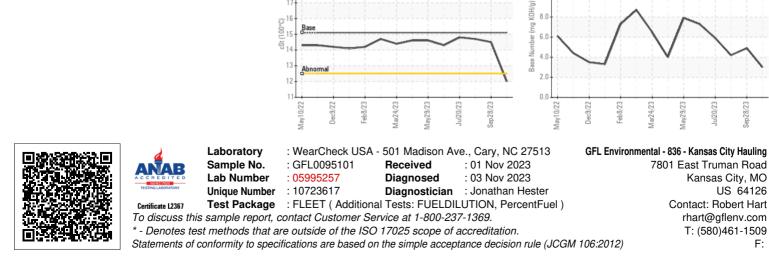




| VISUAL | | method | limit/base | current | history1 | history2 |
|--------------------------------|----------|-----------|------------|-------------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE | NONE |
| 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 |
| Free Water | scalar | *Visual | | NEG | NEG | NEG |
| FLUID PROPE | RTIES | method | limit/base | current | history1 | history2 |
| Visc @ 100°C | cSt | ASTM D445 | 15.1 | 12.0 | 14.5 | 14.7 |
| GRAPHS | | | | | | |
| May10/22 Dec3/22 Feb8/23 | Mar24/23 | Jul20/23 | Sep28/23 | | | |
| Non-ferrous Meta | ls | | | | | |
| May10/22 Dec9/22 Feb8/23 | Mar24/23 | Jui2072a | Sep28/23 | | | |
| ≤ Viscosity @ 100°0 | | | 0 | | | |
| | | | | Base Number | | |

12.0

10



18

17

Contact/Location: See also GFL823, 834, 837, 840 - Robert Hart - GFL836

Sep28/23

Kansas City, MO

US 64126

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