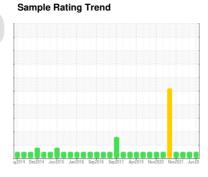


OIL ANALYSIS REPORT

(YA115865) 10421C

Natural Gas Engine

PETRO CANADA DURON GEO LD 15W40 (30 QTS)





DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

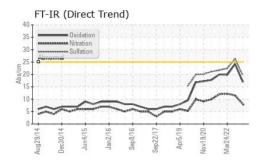
Fluid Condition

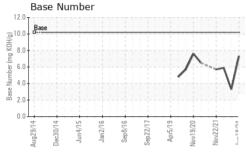
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

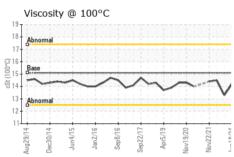
| SAMPLE INFORI | MATION | method | limit/base | current | history1 | history2 |
|---|--|--|---|--|---|--|
| Sample Number | | Client Info | | GFL0123413 | GFL0050748 | PCA0055550 |
| Sample Date | | Client Info | | 18 Jun 2024 | 25 Jan 2023 | 24 Mar 2022 |
| Machine Age | hrs | Client Info | | 99414 | 16435 | 14829 |
| Oil Age | hrs | Client Info | | 99414 | 1606 | 600 |
| Oil Changed | | Client Info | | N/A | Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |
| CONTAMINAT | ION | method | limit/base | current | history1 | history2 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| WEAR METAL | S | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >50 | 7 | 13 | 11 |
| Chromium | ppm | ASTM D5185m | >4 | <1 | 1 | 1 |
| Nickel | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >9 | 1 | 2 | 2 |
| Lead | ppm | ASTM D5185m | >30 | 3 | 2 | <1 |
| Copper | ppm | ASTM D5185m | >35 | 2 | 1 | 1 |
| Tin | ppm | ASTM D5185m | >4 | 0 | 1 | <1 |
| Antimony | ppm | ASTM D5185m | | | | |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | Λ | 0 | 0 |
| Oddiniani | ppiii | AO INI DO IOSIII | | 0 | U | O |
| ADDITIVES | ррш | method | limit/base | current | history1 | history2 |
| | ppm | | limit/base | | | |
| ADDITIVES | | method | | current | history1 | history2 |
| ADDITIVES Boron | ppm | method ASTM D5185m | 50 | current 31 | history1 12 | history2 17 |
| ADDITIVES Boron Barium | ppm ppm | method ASTM D5185m ASTM D5185m | 50 5 50 0 | current 31 0 | history1 12 0 | history2 17 0 |
| ADDITIVES Boron Barium Molybdenum | ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m | 50 5 50 0 560 | current 31 0 49 | history1 12 0 50 <1 485 | history2 17 0 50 |
| ADDITIVES Boron Barium Molybdenum Manganese | ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 50 5 50 0 560 1510 | current 31 0 49 <1 581 1667 | history1 12 0 50 <1 485 1530 | history2 17 0 50 <1 567 1644 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus | ppm ppm ppm ppm | method ASTM D5185m | 50 5 50 0 560 1510 780 | current 31 0 49 <1 581 1667 853 | history1 12 0 50 <1 485 1530 627 | history2 17 0 50 <1 567 1644 689 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc | ppm ppm ppm ppm ppm | method ASTM D5185m | 50 5 50 0 560 1510 780 870 | current 31 0 49 <1 581 1667 853 1012 | history1 12 0 50 <1 485 1530 627 832 | history2 17 0 50 <1 567 1644 689 919 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur | ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m | 50 5 50 0 560 1510 780 870 2040 | current 31 0 49 <1 581 1667 853 | history1 12 0 50 <1 485 1530 627 832 2559 | history2 17 0 50 <1 567 1644 689 919 2134 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN | ppm ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m | 50 5 50 0 560 1510 780 870 2040 limit/base | current 31 0 49 <1 581 1667 853 1012 3020 current | history1 12 0 50 <1 485 1530 627 832 2559 history1 | history2 17 0 50 <1 567 1644 689 919 2134 history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur | ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m | 50 5 50 0 560 1510 780 870 2040 limit/base | current 31 0 49 <1 581 1667 853 1012 3020 | history1 12 0 50 <1 485 1530 627 832 2559 history1 5 | history2 17 0 50 <1 567 1644 689 919 2134 history2 12 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium | ppm ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m | 50 5 50 0 560 1510 780 870 2040 limit/base >+100 | current 31 0 49 <1 581 1667 853 1012 3020 current 4 10 | history1 12 0 50 <1 485 1530 627 832 2559 history1 5 11 | history2 17 0 50 <1 567 1644 689 919 2134 history2 12 11 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon | ppm ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m | 50 5 50 0 560 1510 780 870 2040 limit/base >+100 | current 31 0 49 <1 581 1667 853 1012 3020 current 4 | history1 12 0 50 <1 485 1530 627 832 2559 history1 5 | history2 17 0 50 <1 567 1644 689 919 2134 history2 12 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium | ppm ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m | 50 5 50 0 560 1510 780 870 2040 limit/base >+100 | current 31 0 49 <1 581 1667 853 1012 3020 current 4 10 | history1 12 0 50 <1 485 1530 627 832 2559 history1 5 11 | history2 17 0 50 <1 567 1644 689 919 2134 history2 12 11 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium | ppm ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m | 50 5 50 0 560 1510 780 870 2040 limit/base >+100 >20 | current 31 0 49 <1 581 1667 853 1012 3020 current 4 10 2 | history1 12 0 50 <1 485 1530 627 832 2559 history1 5 11 1 | history2 17 0 50 <1 567 1644 689 919 2134 history2 12 11 0 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m | 50 5 50 0 560 1510 780 870 2040 limit/base >+100 >20 | current 31 0 49 <1 581 1667 853 1012 3020 current 4 10 2 current | history1 12 0 50 <1 485 1530 627 832 2559 history1 5 11 1 history1 | history2 17 0 50 <1 567 1644 689 919 2134 history2 12 11 0 history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m method *ASTM D5185m ASTM D5185m | 50 5 50 0 560 1510 780 870 2040 limit/base >+100 >20 | current 31 0 49 <1 581 1667 853 1012 3020 current 4 10 2 current 0 | history1 12 0 50 <1 485 1530 627 832 2559 history1 5 11 history1 0.1 | history2 17 0 50 <1 567 1644 689 919 2134 history2 12 11 0 history2 0.1 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m method ASTM D5185m | 50 5 50 0 560 1510 780 870 2040 limit/base >+100 >20 limit/base | current 31 0 49 <1 581 1667 853 1012 3020 current 4 10 2 current 0 8.0 | history1 12 0 50 <1 485 1530 627 832 2559 history1 5 11 1 history1 0.1 11.5 | history2 17 0 50 <1 567 1644 689 919 2134 history2 12 11 0 history2 0.1 12.2 |
| ADDITIVES Boron 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 | method ASTM D5185m method *ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415 | 50 5 50 0 560 1510 780 870 2040 limit/base >+100 >20 limit/base | current 31 0 49 <1 581 1667 853 1012 3020 current 4 10 2 current 0 8.0 19.5 | history1 12 0 50 <1 485 1530 627 832 2559 history1 5 11 1 history1 0.1 11.5 26.3 | history2 17 0 50 <1 567 1644 689 919 2134 history2 12 11 0 history2 0.1 12.2 22.4 |



OIL ANALYSIS REPORT





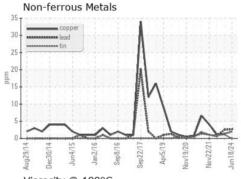


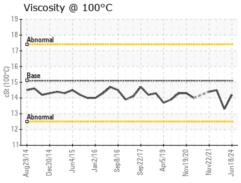
| VISUAL | | method | limit/base | current | history1 | history2 |
|-------------------------|--------|---------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Precipitate | 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 |

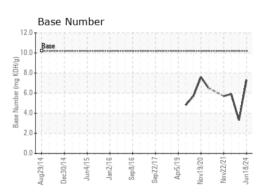
| FLUID PROP | ERIIES | metnoa | ilmit/base | current | nistory i | nistory2 |
|--------------|--------|-----------|------------|---------|-----------|----------|
| Visc @ 100°C | cSt | ASTM D445 | 15.1 | 14.2 | 13.3 | 14.5 |

GRAPHS

Ferrous Alloys











Certificate 12367

Laboratory Sample No.

Lab Number : 06215574 Unique Number : 11088438

: GFL0123413

Test Package : FLEET

To discuss this sample report, contact Customer Service at 1-800-237-1369.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 20 Jun 2024

Tested : 21 Jun 2024 Diagnosed : 21 Jun 2024 - Wes Davis

GFL Environmental - 007 - Brunswick

2809 Galloway Road Bolivia, NC US 28422

Contact: DONALD CRAVEN dcraven@gflenv.com

* - 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)

F: (910)253-4179 Submitted By: DONALD CRAVEN

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