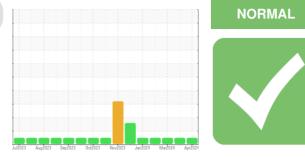


OIL ANALYSIS REPORT

Sample Rating Trend



934021 Component Natural Gas Engine Fluid

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

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Machine Id

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

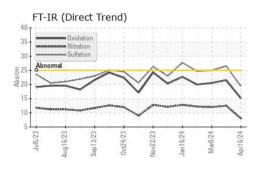
Fluid Condition

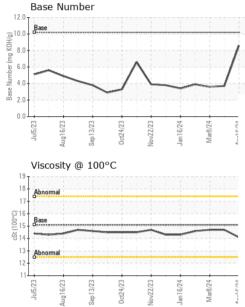
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| SAMPLE INFOR | MATION | method | limit/base | current | history1 | history2 |
|--|---|--|---|---|--|---|
| Sample Number | | Client Info | | GFL0117182 | GFL0114084 | GFL0114015 |
| Sample Date | | Client Info | | 16 Apr 2024 | 28 Mar 2024 | 08 Mar 2024 |
| Machine Age | hrs | Client Info | | 2183 | 4076 | 1919 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Not Changd | Not Changd | Not Changd |
| 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 | 9 | 27 | 20 |
| Chromium | ppm | ASTM D5185m | >5 | <1 | 2 | 1 |
| Nickel | ppm | ASTM D5185m | >4 | 0 | 2 | 1 |
| Titanium | ppm | ASTM D5185m | >5 | 0 | <1 | 0 |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | 2 | 8 | 7 |
| Lead | ppm | ASTM D5185m | >40 | 2 | 5 | 4 |
| Copper | ppm | ASTM D5185m | >150 | <1 | 5 | 3 |
| Tin | ppm | ASTM D5185m | >4 | 1 | 2 | 2 |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | 50 | 8 | 9 | 8 |
| | | | | | | |
| Barium | ppm | ASTM D5185m | 5 | 0 | 0 | 0 |
| Barium Molybdenum | | ASTM D5185m ASTM D5185m | 5 50 | 0 53 | 0 66 | 0 60 |
| | ppm | | 50 | - | | |
| Molybdenum | ppm ppm | ASTM D5185m | 50 | 53 | 66 | 60 |
| Molybdenum Manganese | ppm ppm ppm | ASTM D5185m ASTM D5185m | 50 0 | 53 <1 | 66 2 | 60 2 |
| Molybdenum Manganese Magnesium | ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m | 50 0 560 | 53 <1 567 | 66 2 674 | 60 2 635 |
| Molybdenum Manganese Magnesium Calcium | ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 50 0 560 1510 | 53 <1 567 1751 | 66 2 674 1935 | 60 2 635 1850 |
| Molybdenum Manganese Magnesium Calcium Phosphorus | ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 50 0 560 1510 780 | 53 <1 567 1751 791 | 66 2 674 1935 826 | 60 2 635 1850 852 |
| Molybdenum Manganese Magnesium Calcium Phosphorus Zinc | ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 50 0 560 1510 780 870 | 53 <1 567 1751 791 985 | 66 2 674 1935 826 1158 | 60 2 635 1850 852 1109 |
| 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 | 50 0 560 1510 780 870 2040 limit/base | 53 <1 567 1751 791 985 2998 | 66 2 674 1935 826 1158 2812 | 60 2 635 1850 852 1109 3039 |
| 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 | 50 0 560 1510 780 870 2040 limit/base | 53 <1 567 1751 791 985 2998 current | 66 2 674 1935 826 1158 2812 history1 | 60 2 635 1850 852 1109 3039 history2 |
| 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 | 50 0 560 1510 780 870 2040 iimit/base >25 | 53 <1 567 1751 791 985 2998 current 4 | 66 2 674 1935 826 1158 2812 history1 11 | 60 2 635 1850 852 1109 3039 history2 8 |
| 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 ASTM D5185m | 50 0 560 1510 780 870 2040 iimit/base >25 | 53 <1 567 1751 791 985 2998 current 4 6 | 66 2 674 1935 826 1158 2812 history1 11 9 | 60 2 635 1850 852 1109 3039 history2 8 9 |
| Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium | 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 ASTM D5185m | 50 0 560 1510 780 870 2040 limit/base >25 | 53 <1 567 1751 791 985 2998 current 4 6 0 | 66 2 674 1935 826 1158 2812 history1 11 9 6 | 60 2 635 1850 852 1109 3039 history2 8 9 3 |
| 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 ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 50 0 560 1510 780 870 2040 limit/base >25 | 53 <1 567 1751 791 985 2998 current 4 6 0 | 66 2 674 1935 826 1158 2812 history1 11 9 6 kistory1 | 60 2 635 1850 852 1109 3039 history2 8 9 3 3 |
| 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 ppm | ASTM D5185m ASTM D5185m | 50 0 560 1510 780 870 2040 limit/base >25 | 53 <1 567 1751 791 985 2998 current 4 6 0 current 0.4 | 66 2 674 1935 826 1158 2812 history1 11 9 6 history1 0 | 60 2 635 1850 852 1109 3039 history2 8 9 3 3 history2 0 |
| 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 | ASTM D5185m ASTM D51854 | 50 0 560 1510 780 870 2040 limit/base >20 limit/base | 53 <1 567 1751 791 985 2998 <u>current</u> 4 6 0 0 <u>current</u> 0.4 8.0 | 66 2 674 1935 826 1158 2812 history1 11 9 6 history1 0 12.5 | 60 2 635 1850 852 1109 3039 history2 8 9 3 history2 0 12.0 |
| 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 D7844 *ASTM D7844 *ASTM D7844 | 50 0 560 1510 780 870 2040 imit/base >25 >20 imit/base >20 | 53 <1 567 1751 791 985 2998 current 4 6 0 current 0.4 8.0 19.3 | 66 2 674 1935 826 1158 2812 history1 11 9 6 history1 0 12.5 26.5 | 60 2 635 1850 852 1109 3039 history2 8 9 3 history2 0 12.0 25.0 |



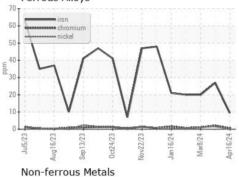
OIL ANALYSIS REPORT

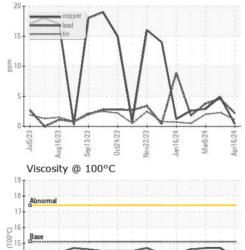


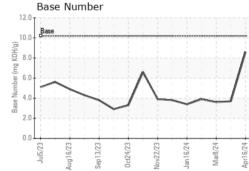


| VISUAL | | method | limit/base | current | history1 | history2 |
|------------------|--------|-----------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Precipitate | scalar | *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 | 14.1 | 14.7 | 14.7 |
| GRAPHS | | | | | | |

Ferrous Alloys







Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 GFL Environmental - 836 - Kansas City Hauling Sample No. : GFL0117182 Received : 19 Apr 2024 7801 East Truman Road Lab Number : 06154110 Tested : 22 Apr 2024 Kansas City, MO Unique Number : 10989533 Diagnosed : 22 Apr 2024 - Wes Davis US 64126 Test Package : FLEET Contact: Loyce Stewart Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. loyce.stewart@gflenv.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F:

53 14

13 Abnor

12

Jul5/23

Aug 16/23

Sep 13/23

Report Id: GFL836 [WUSCAR] 06154110 (Generated: 04/22/2024 12:07:07) Rev: 1

Contact/Location: GFL823,834,836,837,840 - Loyce Stewart - GFL836

Apr16/24 -

Jan 16/24

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Mar8/24