

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

10507C AUTOCAR ISL

Natural Gas Engine

PETRO CANADA DURON GEO LD 15W40 (28 QTS)

DIAGNOSIS

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.

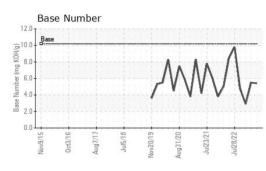


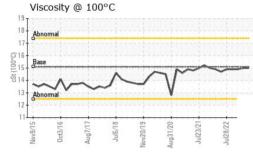


| SAMPLE INFORM | MATION | method | limit/base | current | history1 | history2 |
|--|---|--|--|---|--|---|
| Sample Number | | Client Info | | GFL0094670 | GFL0089301 | GFL0056706 |
| Sample Date | | Client Info | | 31 Oct 2023 | 27 Jul 2023 | 25 Apr 2023 |
| Machine Age | hrs | Client Info | | 7448 | 6834 | 6245 |
| Oil Age | hrs | Client Info | | 0 | 0 | 583 |
| Oil Changed | | Client Info | | Changed | Not Changd | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |
| WEAR METAL | S | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >50 | 23 | 18 | 20 |
| Chromium | ppm | ASTM D5185m | >4 | 2 | 1 | 2 |
| Nickel | ppm | ASTM D5185m | >2 | <1 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >9 | 4 | 4 | 4 |
| Lead | ppm | ASTM D5185m | >30 | 2 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >35 | 2 | 1 | 2 |
| Tin | ppm | ASTM D5185m | >4 | <1 | <1 | 0 |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| | | | | | | |
| Boron | ppm | ASTM D5185m | 50 | 13 | 9 | 5 |
| Boron Barium | ppm ppm | ASTM D5185m ASTM D5185m | 50 5 | 13 0 | 9 2 | 5 0 |
| | | | | | | |
| Barium | ppm | ASTM D5185m ASTM D5185m | 5 | 0 | 2 | 0 |
| Barium Molybdenum | ppm ppm | ASTM D5185m ASTM D5185m | 5 50 | 0 48 | 2 56 | 0 55 |
| Barium Molybdenum Manganese | ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m | 5 50 0 | 0 48 <1 | 2 56 <1 | 0 55 <1 |
| Barium Molybdenum Manganese Magnesium | ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 5 50 0 560 | 0 48 <1 552 | 2 56 <1 636 | 0 55 <1 570 |
| 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 | 0 48 <1 552 1452 | 2 56 <1 636 1769 | 0 55 <1 570 1642 |
| 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 | 0 48 <1 552 1452 762 | 2 56 <1 636 1769 812 | 0 55 <1 570 1642 716 |
| 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 | 0 48 <1 552 1452 762 916 | 2 56 <1 636 1769 812 1064 | 0 55 <1 570 1642 716 992 |
| 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 | 5 50 0 560 1510 780 870 2040 | 0 48 <1 552 1452 762 916 2169 | 2 56 <1 636 1769 812 1064 3152 | 0 55 <1 570 1642 716 992 2994 |
| 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 | 0 48 <1 552 1452 762 916 2169 current | 2 56 <1 636 1769 812 1064 3152 history1 | 0 55 <1 570 1642 716 992 2994 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 method ASTM D5185m | 5 50 0 560 1510 780 870 2040 limit/base | 0 48 <1 552 1452 762 916 2169 2169 current 6 | 2 56 <1 636 1769 812 1064 3152 history1 6 | 0 55 <1 570 1642 716 992 2994 <u>history2</u> 6 |
| 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 | 5 50 0 560 1510 780 870 2040 limit/base >+100 | 0 48 <1 552 1452 762 916 2169 2169 current 6 8 | 2 56 <1 636 1769 812 1064 3152 history1 6 7 | 0 55 <1 570 1642 716 992 2994 history2 6 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 | 0 48 <1 552 1452 762 916 2169 current 6 8 4 | 2 56 <1 636 1769 812 1064 3152 history1 6 7 2 | 0 55 <1 570 1642 716 992 2994 <u>history2</u> 6 7 2 |
| Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Sulfur CONTAMINAN Silicon Sodium Potassium | ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm | ASTM D5185m ASTM D5185m | 5 50 0 560 1510 780 870 2040 limit/base >+100 | 0 48 <1 552 1452 762 916 2169 current 6 8 4 4 | 2 56 <1 636 1769 812 1064 3152 history1 6 7 2 history1 | 0 55 <1 570 1642 716 992 2994 history2 6 7 2 2 history2 |
| 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 | ASTM D5185m ASTM D5185m | 5 50 0 560 1510 780 870 2040 limit/base >+100 >20 limit/base | 0 48 <1 552 1452 762 916 2169 current 6 8 4 4 current 0 | 2 56 <1 636 1769 812 1064 3152 history1 6 7 2 history1 0 | 0 55 <1 570 1642 716 992 2994 history2 6 7 2 9 2 994 history2 0 |
| 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 | ASTM D5185m ASTM D5185m | 5 50 0 560 1510 780 870 2040 limit/base >20 limit/base | 0 48 <1 552 1452 762 916 2169 <u>current</u> 6 8 4 4 <u>current</u> 0 10.4 | 2 56 <1 636 1769 812 1064 3152 history1 6 7 2 history1 0 10.2 | 0 55 <1 570 1642 716 992 2994 <u>history2</u> 6 7 2 2 <u>history2</u> 0 11.1 |
| 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 imit/base >+100 >20 imit/base >20 imit/base | 0 48 <1 552 1452 762 916 2169 <u>current</u> 6 8 4 4 <u>current</u> 0 10.4 21.9 | 2 56 <1 636 1769 812 1064 3152 history1 6 7 2 <u>history1</u> 0 10.2 20.5 | 0 55 <1 570 1642 716 992 2994 history2 6 7 2 8 history2 0 11.1 21.5 |

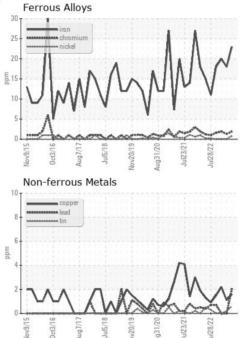


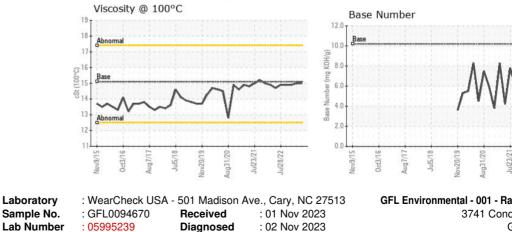
OIL ANALYSIS REPORT





| 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 | 15.0 | 15.0 | 14.9 |
| GRAPHS | | | | | | |
| | | | | | | |





: Wes Davis

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Diagnostician

Unique Number : 10723599

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