

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id 849005

Component Natural Gas Engine

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

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

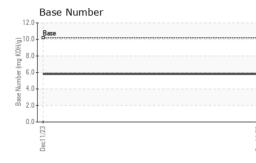
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

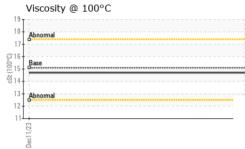
| | | ine ette e el | l: | Dec2023 | la ta ta mud | biotom 0 |
|---|--|--|--|--|--|--|
| SAMPLE INFORI | VIATION | | limit/base | current | history1 | history2 |
| Sample Number | | Client Info | | GFL0090373 | | |
| Sample Date | | Client Info | | 11 Dec 2023 | | |
| Machine Age | hrs | Client Info | | 11623 | | |
| Oil Age | hrs | Client Info | | 0 | | |
| Oil Changed | | Client Info | | Changed | | |
| Sample Status | | | | NORMAL | | |
| CONTAMINAT | ION | method | limit/base | current | history1 | history2 |
| Water | | WC Method | >0.1 | NEG | | |
| WEAR METAL | S | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >50 | 10 | | |
| Chromium | ppm | ASTM D5185m | >4 | <1 | | |
| Nickel | ppm | ASTM D5185m | >2 | 0 | | |
| Titanium | ppm | ASTM D5185m | | 0 | | |
| Silver | ppm | ASTM D5185m | >3 | 0 | | |
| Aluminum | ppm | ASTM D5185m | >9 | 3 | | |
| Lead | ppm | ASTM D5185m | >30 | 0 | | |
| Copper | ppm | ASTM D5185m | >35 | 1 | | |
| Tin | ppm | ASTM D5185m | >4 | 0 | | |
| Vanadium | ppm | ASTM D5185m | | 0 | | |
| Cadmium | ppm | ASTM D5185m | | 0 | | |
| | | | | | | |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| ADDITIVES Boron | ppm | method ASTM D5185m | limit/base | current 26 | history1 | history2 |
| | ppm ppm | | | | | |
| Boron | | ASTM D5185m | 50 | 26 | | |
| Boron Barium | ppm | ASTM D5185m ASTM D5185m | 50 5 | 26 0 | | |
| Boron Barium Molybdenum | ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m | 50 5 50 | 26 0 49 | | |
| Boron Barium Molybdenum Manganese | ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 50 5 50 0 | 26 0 49 <1 | | |
| Boron Barium Molybdenum Manganese Magnesium | ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 50 5 50 0 560 | 26 0 49 <1 571 | | |
| Boron Barium Molybdenum Manganese Magnesium Calcium | ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 50 5 50 0 560 1510 | 26 0 49 <1 571 1548 | | |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus | ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 50 5 50 0 560 1510 780 | 26 0 49 <1 571 1548 808 | | |
| Boron 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 ASTM D5185m | 50 5 50 0 560 1510 780 870 | 26 0 49 <1 571 1548 808 971 | | |
| Boron 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 | 50 5 50 0 560 1510 780 870 2040 | 26 0 49 <1 571 1548 808 971 2543 | | |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN | 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 50 50 560 1510 780 870 2040 >+100 | 26 0 49 <1 571 1548 808 971 2543 current | | |
| Boron 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 ASTM D5185m | 50 5 50 0 560 1510 780 870 2040 2040 2040 2040 | 26 0 49 <1 571 1548 808 971 2543 current 10 | | |
| Boron 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 ASTM D5185m ASTM D5185m ASTM D5185m | 50 5 50 0 560 1510 780 870 2040 2040 2040 2040 | 26 0 49 <1 571 1548 808 971 2543 <u>current</u> 10 5 | | history2 |
| Boron 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 | 50 50 00 560 1510 780 870 2040 limit/base >+100 | 26 0 49 <1 571 1548 808 971 2543 current 10 5 0 | history1 | history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED | ppm ppm ppm ppm ppm ppm ppm ppm TS | ASTM D5185m ASTM D5185m | 50 5 50 0 560 1510 780 870 2040 Limit/base >20 Limit/base | 26 0 49 <1 571 1548 808 971 2543 current 10 5 0 0 | history1 history1 | history2 history2 |
| Boron 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 | 50 5 50 0 560 1510 780 870 2040 Limit/base >20 Limit/base | 26 0 49 <1 571 1548 808 971 2543 <i>current</i> 10 5 0 <i>current</i> 0 | history1 history1 history1 | history2 history2 |
| 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 | ASTM D5185m ASTM D5185m | 50 50 00 560 1510 780 870 2040 Iimit/base >+100 20 Iimit/base | 26 0 49 <1 571 1548 808 971 2543 <i>current</i> 10 5 0 <i>current</i> 0 8.3 | history1 history1 history1 | history2 history2 history2 |
| 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 | ASTM D5185m ASTM D5185m | 50 50 560 1510 780 870 2040 imit/base >+100 imit/base >20 30 imit/base | 26 0 49 <1 571 1548 808 971 2543 <u>current</u> 10 5 0 <u>current</u> 0 8.3 18.8 | history1 history1 history1 | history2 history2 history2 |
| 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 | ASTM D5185m ASTM D7844 *ASTM D7624 | 50 5 50 0 560 1510 780 870 2040 imit/base >20 imit/base >20 imit/base >20 | 26 0 49 <1 571 1548 808 971 2543 <i>current</i> 10 5 0 <i>current</i> 0 8.3 18.8 | history1 history1 history1 history1 | history2 history2 history2 history2 |

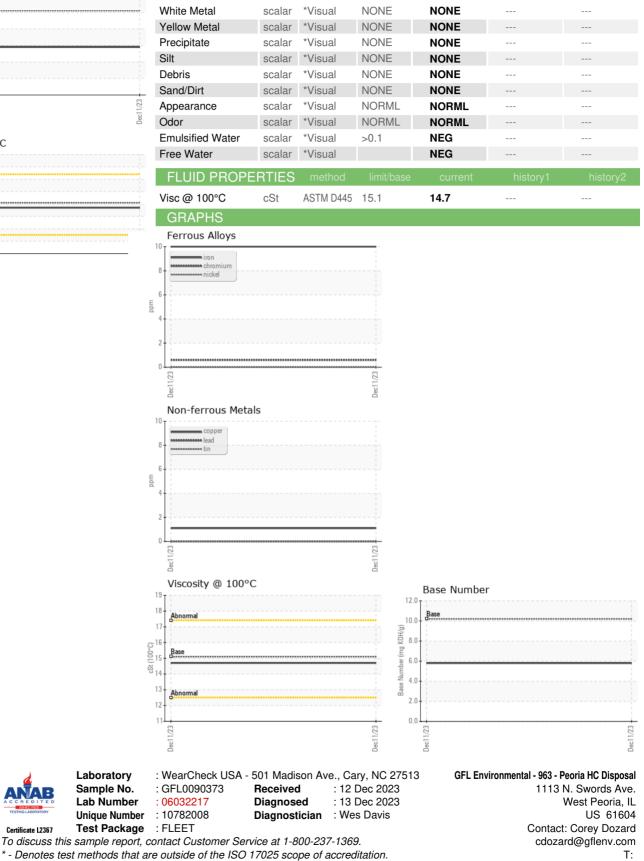


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VISUAL







Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Certificate L2367

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