

OIL ANALYSIS REPORT

Sample Rating Trend







Machine Id 821081

Component Diesel Engine

Fluid PETRO CANADA DURON SHP 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

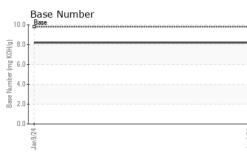
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

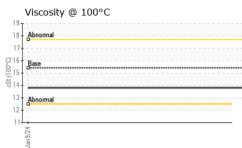
| SAMPLE INFORI | MATION | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|--|
| Sample Number | | Client Info | | GFL0095332 | | |
| Sample Date | | Client Info | | 09 Jan 2024 | | |
| Machine Age | hrs | Client Info | | 7646 | | |
| Oil Age | hrs | Client Info | | 650 | | |
| Oil Changed | | Client Info | | Changed | | |
| Sample Status | | | | NORMAL | | |
| CONTAMINAT | ION | method | limit/base | current | history1 | history2 |
| Fuel | | WC Method | >5 | <1.0 | | |
| Water | | WC Method | >0.2 | NEG | | |
| Glycol | | WC Method | | NEG | | |
| WEAR METAL | S | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >100 | 16 | | |
| Chromium | ppm | ASTM D5185m | >20 | 0 | | |
| Nickel | ppm | ASTM D5185m | >4 | 0 | | |
| Titanium | ppm | ASTM D5185m | | 0 | | |
| Silver | ppm | ASTM D5185m | >3 | 0 | | |
| Aluminum | ppm | ASTM D5185m | >20 | 2 | | |
| Lead | ppm | ASTM D5185m | >40 | 0 | | |
| Copper | ppm | ASTM D5185m | >330 | <1 | | |
| Tin | ppm | ASTM D5185m | >15 | 0 | | |
| Vanadium | ppm | ASTM D5185m | | 0 | | |
| Cadmium | nnm | ASTM D5185m | | • | | |
| Gadillian | ppm | ASTIVI DOTODITI | | 0 | | |
| ADDITIVES | ppm | method | limit/base | current | history1 | history2 |
| | ppm | | limit/base | - | | |
| ADDITIVES | | method | | current | history1 | history2 |
| ADDITIVES Boron | ppm | method ASTM D5185m | 0 | current | history1 | history2 |
| ADDITIVES Boron Barium | ppm ppm | method ASTM D5185m ASTM D5185m | 0 | current <1 0 | history1 | history2 |
| ADDITIVES Boron Barium Molybdenum | ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m | 0 0 60 | current <1 0 61 | history1 | history2 |
| ADDITIVES Boron Barium Molybdenum Manganese | ppm ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 0 0 60 0 | current <1 0 61 0 | history1 | history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium | ppm ppm ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 0 0 60 0 1010 | <pre>current <1 0 61 0 939</pre> | history1 | history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium | ppm ppm ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 0 0 60 0 1010 1070 | <pre>current <1 0 61 0 939 1022</pre> | history1 | history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus | ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 0 0 60 0 1010 1070 1150 | current <1 0 61 0 939 1022 964 | history1 | history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc | ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 0 0 60 0 1010 1070 1150 1270 | current <1 0 61 0 939 1022 964 1264 | history1 | history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur | ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 0 0 60 0 1010 1070 1150 1270 2060 | Current <1 0 61 0 939 1022 964 1264 2946 | history1 | history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN | ppm ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 0 0 60 1010 1070 1150 1270 2060 | Current <1 0 61 0 939 1022 964 1264 2946 Current | history1 | history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon | ppm ppm ppm ppm ppm ppm ppm ppm ppm TS | method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m | 0 0 60 0 1010 1070 1150 1270 2060 limit/base | current <1 0 61 0 939 1022 964 1264 2946 current 3 | history1 history1 | history2 history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m | 0 0 60 0 1010 1070 1150 1270 2060 limit/base | current <1 0 61 0 939 1022 964 1264 2946 current 3 31 | history1 | history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m ASTM D5185m | 0 0 0 1010 1070 1150 1270 2060 limit/base >25 | current <1 0 61 0 939 1022 964 1264 2946 current 3 31 33 | history1 history1 history1 | history2 history2 history2 |
| 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 | 0 0 0 1010 1070 1150 1270 2060 2060 225 >25 >20 Limit/base >20 | current <1 0 61 0 939 1022 964 1264 2946 current 3 31 33 current | history1 history1 history1 history1 | history2 history2 history2 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 | 0 0 0 1010 1070 1150 1270 2060 2060 225 >25 >20 Limit/base >20 | current <1 0 61 0 939 1022 964 1264 2946 current 3 31 33 current 0.9 | history1 history1 history1 history1 | history2 history2 history2 history2 |
| 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 TS ppm ppm ppm | method ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415 | 0 0 0 1010 1070 1150 1270 2060 2060 225 220 220 220 20 20 20 20 20 20 20 20 20 | current <1 0 61 0 939 1022 964 1264 2946 current 3 31 33 current 0.9 7.0 | history1 history1 history1 history1 | history2 |
| 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 TS ppm ppm ppm | method ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415 | 0 0 0 1010 1070 1150 1270 2060 2060 225 20 225 20 20 320 33 20 20 20 | current <1 0 61 0 939 1022 964 1264 2946 current 3 31 33 current 0.9 7.0 19.2 | history1 history1 history1 history1 history1 | history2 history2 history2 |

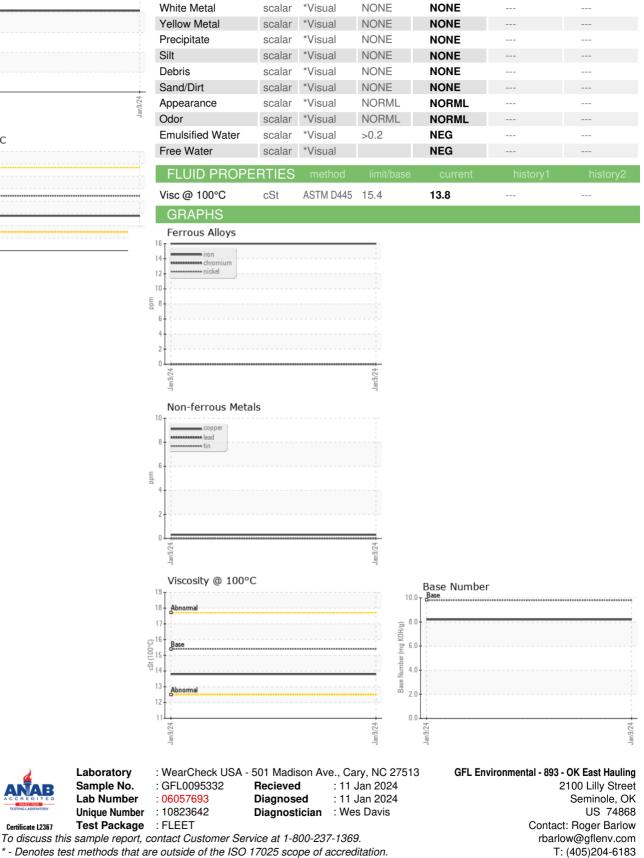


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VISUAL







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

Certificate L2367

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