

OIL ANALYSIS REPORT

(65371Z) Walgreens - Tractor [Walgreens - Tractor] 136A624204 Component

Diesel Engine

PETRO CANADA DURON SHP 10W30 (11 GAL)

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. 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 acceptable for the time in service.





| SAMPLE INFOR | MATION | method | limit/base | current | history1 | history2 |
|---|--|---|--|--|--|--|
| Sample Number | | Client Info | | PCA0103554 | | |
| Sample Date | | Client Info | | 27 Feb 2024 | | |
| Machine Age | mls | Client Info | | 63860 | | |
| Oil Age | mls | Client Info | | 63860 | | |
| Oil Changed | | Client Info | | Changed | | |
| Sample Status | | | | NORMAL | | |
| CONTAMINAT | | 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 | >80 | 84 | | |
| Chromium | ppm | ASTM D5185m | >5 | 6 | | |
| Nickel | ppm | ASTM D5185m | >2 | 1 | | |
| Titanium | ppm | ASTM D5185m | | 0 | | |
| Silver | ppm | ASTM D5185m | >3 | 0 | | |
| Aluminum | ppm | ASTM D5185m | >30 | 179 | | |
| Lead | ppm | ASTM D5185m | >30 | 2 | | |
| Copper | ppm | ASTM D5185m | >150 | 157 | | |
| Tin | ppm | ASTM D5185m | >5 | 4 | | |
| 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 | - | history1 | history2 |
| | ppm ppm | ASTM D5185m | | current | | |
| Boron | | ASTM D5185m | 2 | current | | |
| Boron Barium | ppm | ASTM D5185m ASTM D5185m | 2 0 50 | current 13 <1 | | |
| Boron Barium Molybdenum | ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m | 2 0 50 | current 13 <1 42 | | |
| Boron Barium Molybdenum Manganese | ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 2 0 50 0 | current 13 <1 42 5 | | |
| Boron Barium Molybdenum Manganese Magnesium | ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 2 0 50 0 950 | current 13 <1 42 5 612 | | |
| Boron Barium Molybdenum Manganese Magnesium Calcium | ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 2 0 50 0 950 1050 | current 13 <1 42 5 612 1632 | | |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus | ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 2 0 50 0 950 1050 995 | current 13 <1 42 5 612 1632 705 | | |
| 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 | 2 0 50 0 950 1050 995 1180 | current 13 <1 42 5 612 1632 705 846 | | |
| 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 | 2 0 50 950 1050 995 1180 2600 | current 13 <1 42 5 612 1632 705 846 1902 | | |
| Boron 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 | 2 0 50 0 950 1050 995 1180 2600 limit/base | current 13 <1 42 5 612 1632 705 846 1902 current | history1 | history2 |
| 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 method | 2 0 50 950 1050 995 1180 2600 limit/base >20 | current 13 <1 42 5 612 1632 705 846 1902 current 9 | history1 | history2 |
| 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 method ASTM D5185m | 2 0 50 950 1050 995 1180 2600 limit/base >20 | current 13 <1 42 5 612 1632 705 846 1902 current 9 8 | history1 | 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 | 2 0 50 0 950 1050 995 1180 2600 limit/base >20 | current 13 <1 42 5 612 1632 705 846 1902 current 9 8 406 current | 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 ppm ppm | ASTM D5185m ASTM D5185m | 2 0 50 0 950 1050 995 1180 2600 limit/base >20 limit/base >3 | current 13 <1 42 5 612 1632 705 846 1902 current 9 8 406 current 0.8 | 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 | ASTM D5185m ASTM D5185m | 2 0 50 950 1050 995 1180 2600 limit/base >20 limit/base >3 >20 | current 13 <1 42 5 612 1632 705 846 1902 current 9 8 406 current | history1 history1 | 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 | 2 0 50 950 1050 995 1180 2600 limit/base >20 limit/base >3 >20 | current 13 <1 42 5 612 1632 705 846 1902 current 9 8 406 current 0.8 13.6 | history1 history1 history1 | 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 D7844 *ASTM D7844 | 2 0 0 50 0 950 1050 995 1180 2600 imit/base >20 imit/base >3 >20 >30 imit/base | current 13 <1 42 5 612 1632 705 846 1902 current 9 8 406 current 0.8 13.6 25.8 current | history1 history1 history1 history1 | history2 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 | 2 0 50 950 1050 995 1180 2600 imit/base >20 imit/base >3 >20 >3 | current 13 <1 42 5 612 1632 705 846 1902 current 9 8 406 current 0.8 13.6 25.8 | history1 history1 history1 | history2 history2 history2 |



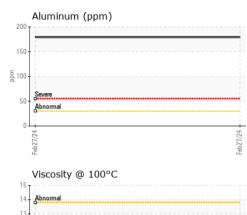
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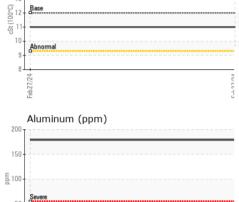
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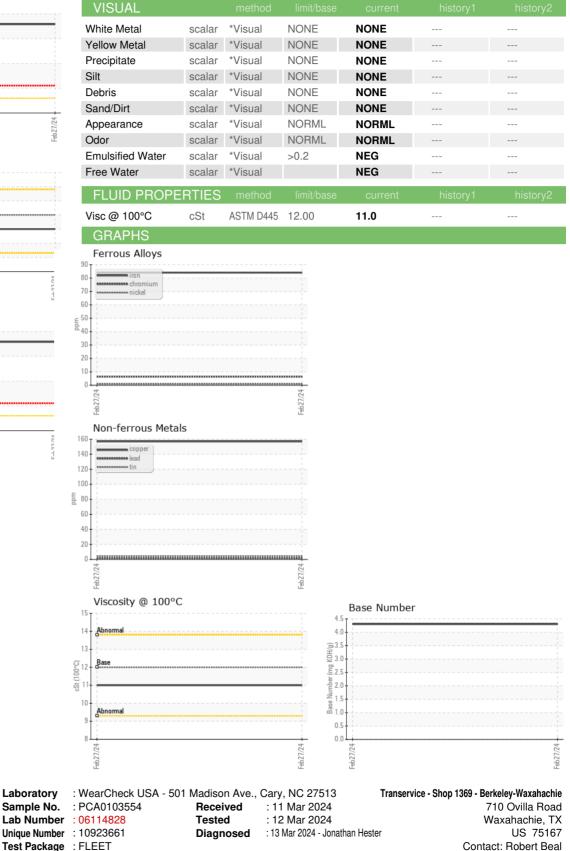
Feb27/24

Abnormal

OIL ANALYSIS REPORT







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

* - 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)

Certificate L2367

Laboratory

Sample No.

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