

OIL ANALYSIS REPORT



Machine Id **26635** Component **Diesel Engine** Fluid **PETRO CANADA DURON UHP 5W30 (--- QTS)**

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

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 | | PCA0123198 | PCA0087226 | |
| Sample Date | | Client Info | | 29 May 2024 | 22 Feb 2023 | |
| Machine Age | mls | Client Info | | 442538 | 403000 | |
| Oil Age | mls | Client Info | | 12000 | 20000 | |
| Oil Changed | | Client Info | | Not Changd | Changed | |
| Sample Status | | | | NORMAL | NORMAL | |
| CONTAMINATI | ON | method | limit/base | current | history1 | history2 |
| Fuel | | WC Method | >5 | <1.0 | <1.0 | |
| Water | | WC Method | >0.2 | NEG | NEG | |
| Glycol | | WC Method | | NEG | NEG | |
| WEAR METALS method limit/base current history1 history2 | | | | | | |
| Iron | ppm | ASTM D5185m | >100 | 18 | 35 | |
| Chromium | ppm | ASTM D5185m | >20 | 0 | 1 | |
| Nickel | ppm | ASTM D5185m | >4 | 0 | <1 | |
| Titanium | ppm | ASTM D5185m | | 15 | 0 | |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | |
| Aluminum | ppm | ASTM D5185m | >20 | 3 | 5 | |
| Lead | ppm | ASTM D5185m | >40 | <1 | 2 | |
| Copper | ppm | ASTM D5185m | >330 | 7 | 7 | |
| Tin | ppm | ASTM D5185m | >15 | <1 | 1 | |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | |
| | | | | | | |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| ADDITIVES Boron | ppm | method ASTM D5185m | limit/base 0 | current 8 | history1 0 | history2 |
| ADDITIVES Boron Barium | ppm ppm | method ASTM D5185m ASTM D5185m | limit/base 0 0 | current 8 0 | history1 0 2 | history2 |
| ADDITIVES Boron Barium Molybdenum | ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m | limit/base 0 0 64 | current 8 0 48 | history1 0 2 58 | history2 |
| ADDITIVES Boron Barium Molybdenum Manganese | ppm ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | limit/base 0 0 64 0 | current 8 0 48 <1 | history1 0 2 58 <1 | history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium | ppm ppm ppm ppm ppm | method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | limit/base 0 0 64 0 1160 | current 8 0 48 <1 792 | history1 0 2 58 <1 849 | history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium | ppm ppm ppm ppm ppm ppm | methodASTM D5185mASTM D5185mASTM D5185mASTM D5185mASTM D5185mASTM D5185m | limit/base 0 64 0 1160 820 | current 8 0 48 <1 792 1228 | history1 0 2 58 <1 849 1050 | 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 | limit/base 0 64 0 1160 820 1160 | current 8 0 48 <1 792 1228 964 | history1 0 2 58 <1 849 1050 896 | history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc | ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m | limit/base 0 64 0 1160 820 1160 1260 | current 8 0 48 <1 792 1228 964 1199 | history1 0 2 58 <1 849 1050 896 1134 | 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 | limit/base 0 64 0 1160 820 1160 1260 3000 | current 8 0 48 <1 792 1228 964 1199 3498 | history1 0 2 58 <1 849 1050 896 1134 2339 | 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 | limit/base 0 64 0 1160 820 1160 1260 3000 | current 8 0 48 <1 792 1228 964 1199 3498 current | history1 0 2 58 <1 849 1050 896 1134 2339 history1 | history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m | <pre>imit/base 0 0 64 0 1160 820 1160 1260 3000 imit/base >25</pre> | current 8 0 48 <1 792 1228 964 1199 3498 current 5 | history1 0 2 58 <1 849 1050 896 1134 2339 history1 6 | history2 history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium | ppm ppm ppm ppm ppm ppm ppm ppm ppm TS | method ASTM D5185m | limit/base 0 0 64 0 1160 820 1160 1260 3000 limit/base >25 | current 8 0 48 <1 792 1228 964 1199 3498 current 5 8 | history1 0 2 58 <1 849 1050 896 1134 2339 history1 6 16 | history2 history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium | ppm | method ASTM D5185m | limit/base 0 64 0 1160 820 1160 3000 limit/base >25 >20 | current 8 0 48 <1 792 1228 964 1199 3498 current 5 8 3 | history1 0 2 58 <1 849 1050 896 1134 2339 history1 6 16 3 | history2 history2 history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED | ppm ppm ppm ppm ppm ppm ppm ppm ppm TS ppm | method ASTM D5185m | imit/base 0 64 0 1160 820 1160 1260 3000 imit/base ≥25 ≥20 | current 8 0 48 <1 792 1228 964 1199 3498 current 5 8 3 current | history1 0 2 58 <1 849 1050 896 1134 2339 history1 6 16 3 history1 | history2 history2 history2 history2 history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % | ppm | method ASTM D5185m | imit/base 0 0 64 0 1160 820 1160 3000 imit/base >20 imit/base >30 | current 8 0 48 <1 792 1228 964 1199 3498 current 5 8 3 current 0.5 | history1 0 2 58 <1 849 1050 896 1134 2339 history1 6 16 3 history1 0.8 | history2 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 ppm | method ASTM D5185m | imit/base 0 0 64 0 1160 820 1160 3000 imit/base >20 imit/base >3 >20 | current 8 0 48 <1 792 1228 964 1199 3498 current 5 8 3 current 0.5 9.3 | history1 0 2 58 <1 849 1050 896 1134 2339 history1 6 16 3 history1 0.8 11.0 | history2 history2 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 ppm | method ASTM D5185m ASTM D7844 *ASTM D7624 | <pre>imit/base 0 0 64 0 1160 820 1160 1260 3000 ilmit/base >220 imit/base >3 >20</pre> | current 8 0 48 <1 792 1228 964 1199 3498 current 5 8 3 current 0.5 9.3 21.2 | history1 0 2 58 <1 849 1050 896 1134 2339 history1 6 16 3 history1 0.8 11.0 22.8 | history2 history2 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 ppm | method ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415 | imit/base 0 0 64 0 1160 820 1160 1260 3000 imit/base >20 imit/base >30 >20 >30 imit/base | current 8 0 48 <1 792 1228 964 1199 3498 current 5 8 3 current 0.5 9.3 21.2 current | history1 0 2 58 <1 849 1050 896 1134 2339 history1 6 16 3 history1 0.8 11.0 22.8 history1 | history2 history2 history2 history2 history2 history2 |
| ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAD Oxidation | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | method ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7415 method *ASTM D7414 | imit/base 0 0 64 0 1160 820 1160 1260 3000 imit/base >20 >30 >20 >30 >20 >30 >20 >30 >25 | current 8 0 48 <1 792 1228 964 1199 3498 current 5 8 0.5 9.3 21.2 current 17.3 | history1 0 2 58 <1 849 1050 896 1134 2339 history1 6 16 3 history1 0.8 11.0 22.8 history1 18.7 | history2 history2 history2 history2 history2 history2 history2 |



OIL ANALYSIS REPORT

VISUAL









Unique Number : 11063330 Diagnosed : 07 Jun 2024 - Wes Davis Test Package : FLEET Contact: RICHARD O`NEAL Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. richard.oneal@perdue.com * - 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)

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