

Machine Id **201108** Component **Diesel Engine** Filuid **PETRO CANADA DURON SHP 15W40 (--- GAL)**

RECOMMENDATION

No corrective action is recommended at this time. 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

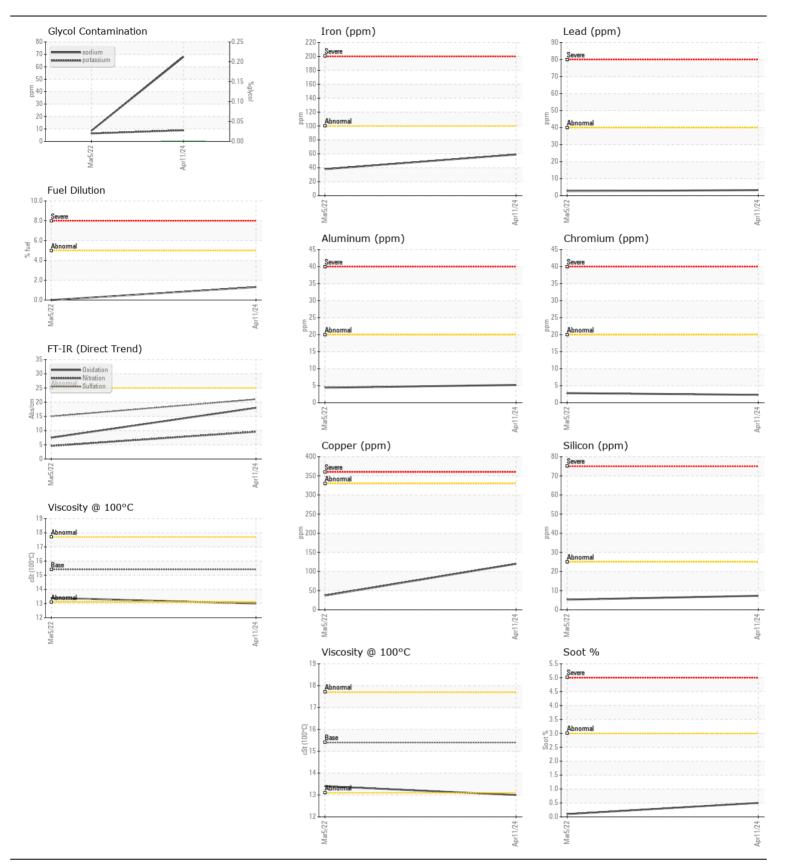
Light fuel dilution occurring. No other contaminants were detected in the oil.

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

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|------------------|----------|---------------|-----------|-------------|-------------|----------|
| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
| Sample Number | | Client Info | | GFL0096778 | GFL0039319 | |
| Sample Date | | Client Info | | 11 Apr 2024 | 05 Mar 2022 | |
| Machine Age | hrs | Client Info | | 23664 | 18179 | |
| Oil Age | hrs | Client Info | | 0 | 600 | |
| Filter Age | hrs | Client Info | | 600 | 600 | |
| Oil Changed | | Client Info | | N/A | Changed | |
| Filter Changed | | Client Info | | N/A | Changed | |
| Sample Status | | | | NORMAL | NORMAL | |
| | | | | | | |
| Iron | ppm | ASTM D5185(m) | >100 | 59 | 38 | |
| Chromium | ppm | ASTM D5185(m) | >20 | 2 | 3 | |
| Nickel | ppm | ASTM D5185(m) | >4 | <1 | <1 | |
| Titanium | ppm | ASTM D5185(m) | | 4 | <1 | |
| Silver | ppm | ASTM D5185(m) | >3 | 0 | 0 | |
| Aluminum | ppm | ASTM D5185(m) | >20 | 5 | 4 | |
| Lead | ppm | ASTM D5185(m) | >40 | 3 | 3 | |
| Copper | ppm | ASTM D5185(m) | >330 | 120 | 37 | |
| Tin | ppm | ASTM D5185(m) | >15 | <1 | <1 | |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | |
| Silicon | ppm | ASTM D5185(m) | >25 | 7 | 5 | |
| Potassium | ppm | ASTM D5185(m) | >20 | 9 | 6 | |
| Fuel | % | ASTM D7593* | >5 | 1.3 | <1.0 | |
| Water | | WC Method | >0.2 | NEG | NEG | |
| Glycol | % | ASTM D7922* | | 0.0 | NEG | |
| Soot % | % | ASTM D7844* | >3 | 0.5 | 0.1 | |
| Nitration | Abs/cm | ASTM D7624* | >20 | 9.6 | 4.6 | |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | 21.0 | 15.0 | |
| Emulsified Water | scalar | Visual* | >0.2 | NEG | NEG | |
| | | | | ~~~ | | |
| Sodium | ppm | ASTM D5185(m) | 0 | 68 | 8 | |
| Boron | ppm | ASTM D5185(m) | | 2 | 2 | |
| Barium | ppm | ASTM D5185(m) | 0 | 8 | 0 | |
| Molybdenum | ppm | ASTM D5185(m) | 60 | 62 | 60 | |
| Manganese | ppm | ASTM D5185(m) | 0 | 1 | <1 | |
| Magnesium | ppm | ASTM D5185(m) | 1010 | 953 | 947 | |
| Calcium | ppm | ASTM D5185(m) | 1070 | 1081 | 1042 | |
| Phosphorus | ppm | ASTM D5185(m) | 1150 | 896 | 898 | |
| Zinc | ppm | ASTM D5185(m) | 1270 | 1142 | 1181 | |
| Sulfur | ppm | ASTM D5185(m) | 2060 | 2211 | 2229 | |
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | 18.0 | 7.5 | |
| Visc @ 100°C | cSt | ASTM D7279(m) | 15.4 | 13.0 | 13.4 | |

Contact/Location: Sanjay Kisun - GFL574 Page 1 of 2



: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 574 - Vancouver Fleet Laboratory CALA Sample No. Received : 24 Apr 2024 70 Golden Drive, : GFL0096778 Lab Number : 02631111 Tested : 25 Apr 2024 Coquitlam, BC ISO 17025:2017 Accredited Laboratory Unique Number : 5772264 Diagnosed : 25 Apr 2024 - Wes Davis CA V3K 6B5 Test Package : MOB 1 (Additional Tests: FuelDilution, Glycol, PercentFuel) Contact: Sanjay Kisun To discuss this sample report, contact Customer Service at 1-800-268-2131. skisun@gflenv.com T: (604)529-4030 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. F: (604)529-4026 Validity of results and interpretation are based on the sample and information as supplied.