MOB I LUBE 360 OIL DIAGNOSTICS

# OIL ANALYSIS REPORT

| | |
|---|---|
| WEAR | NORMAL |
| CONTAMINATION | SEVERE |
| FLUID CONDITION | ABNORMAL |

Machine Id
**501028**
Component
**Diesel Engine**
Fluid
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

## RECOMMENDATION

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

## WEAR

All component wear rates are normal.

## CONTAMINATION

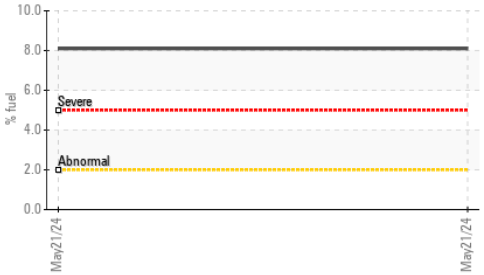
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

## FLUID CONDITION

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

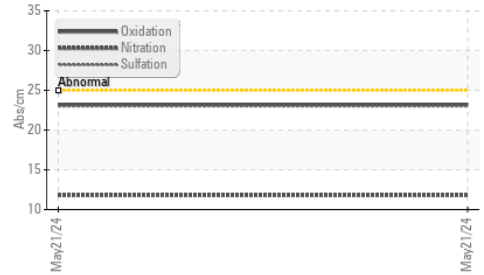
| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | GFL0118579 | --- | --- |
| Sample Date | | Client Info | | 21 May 2024 | --- | --- |
| Machine Age | hrs | Client Info | | 0 | --- | --- |
| Oil Age | hrs | Client Info | | 0 | --- | --- |
| Filter Age | hrs | Client Info | | 0 | --- | --- |
| Oil Changed | | Client Info | | N/A | --- | --- |
| Filter Changed | | Client Info | | N/A | --- | --- |
| Sample Status | | | | SEVERE | --- | --- |
| Iron | ppm | ASTM D5185(m) | >100 | 12 | --- | --- |
| Chromium | ppm | ASTM D5185(m) | >20 | <1 | --- | --- |
| Nickel | ppm | ASTM D5185(m) | >4 | 0 | --- | --- |
| Titanium | ppm | ASTM D5185(m) | | 0 | --- | --- |
| Silver | ppm | ASTM D5185(m) | >3 | 0 | --- | --- |
| Aluminum | ppm | ASTM D5185(m) | >20 | 1 | --- | --- |
| Lead | ppm | ASTM D5185(m) | >40 | 0 | --- | --- |
| Copper | ppm | ASTM D5185(m) | >330 | <1 | --- | --- |
| Tin | ppm | ASTM D5185(m) | >15 | 0 | --- | --- |
| Vanadium | ppm | ASTM D5185(m) | | 0 | --- | --- |
| Silicon | ppm | ASTM D5185(m) | >25 | 3 | --- | --- |
| Potassium | ppm | ASTM D5185(m) | >20 | 2 | --- | --- |
| Fuel | % | ASTM D7593* | >2.0 | ▲ 8.1 | --- | --- |
| Water | | WC Method | >0.2 | NEG | --- | --- |
| Glycol | | WC Method | | NEG | --- | --- |
| Soot % | % | ASTM D7844* | >3 | 0.3 | --- | --- |
| Nitration | Abs/cm | ASTM D7624* | >20 | 11.8 | --- | --- |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | 23.0 | --- | --- |
| Emulsified Water | scalar | Visual* | >0.2 | NEG | --- | --- |
| Sodium | ppm | ASTM D5185(m) | | 2 | --- | --- |
| Boron | ppm | ASTM D5185(m) | 0 | 71 | --- | --- |
| Barium | ppm | ASTM D5185(m) | 0 | 0 | --- | --- |
| Molybdenum | ppm | ASTM D5185(m) | 60 | 66 | --- | --- |
| Manganese | ppm | ASTM D5185(m) | 0 | <1 | --- | --- |
| Magnesium | ppm | ASTM D5185(m) | 1010 | 776 | --- | --- |
| Calcium | ppm | ASTM D5185(m) | 1070 | 1154 | --- | --- |
| Phosphorus | ppm | ASTM D5185(m) | 1150 | 779 | --- | --- |
| Zinc | ppm | ASTM D5185(m) | 1270 | 919 | --- | --- |
| Sulfur | ppm | ASTM D5185(m) | 2060 | 2167 | --- | --- |
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | 23.2 | --- | --- |
| Visc @ 100°C | cSt | ASTM D7279(m) | 15.4 | ▲ 11.6 | --- | --- |

Fuel Dilution

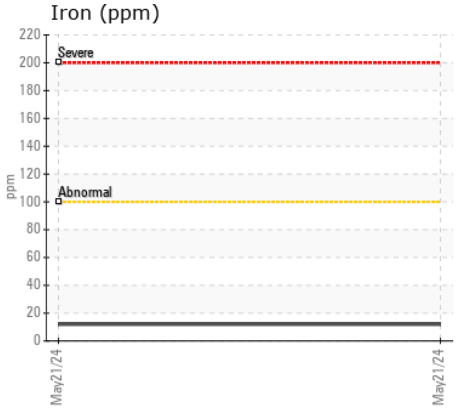



Viscosity @ 100°C

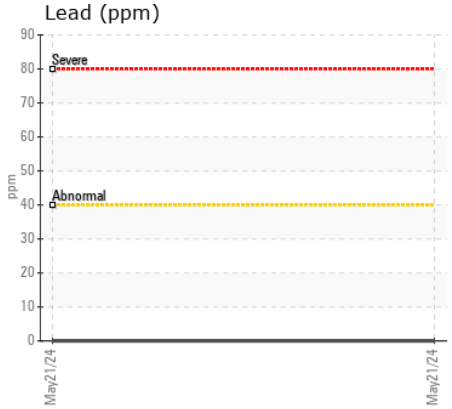

FT-IR (Direct Trend)



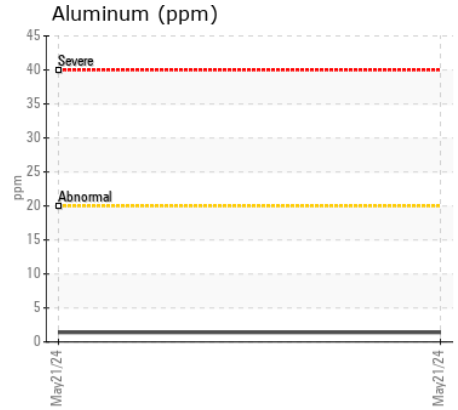

Iron (ppm)



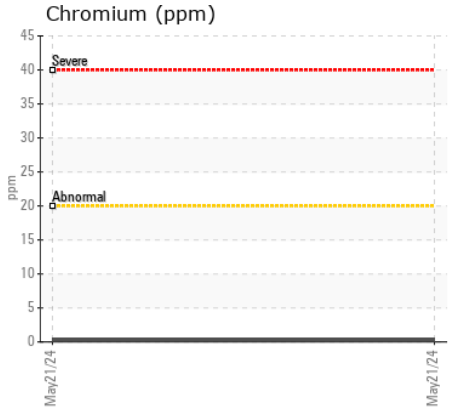

Lead (ppm)



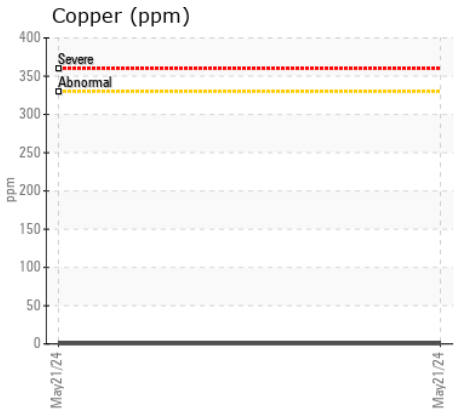

Aluminum (ppm)



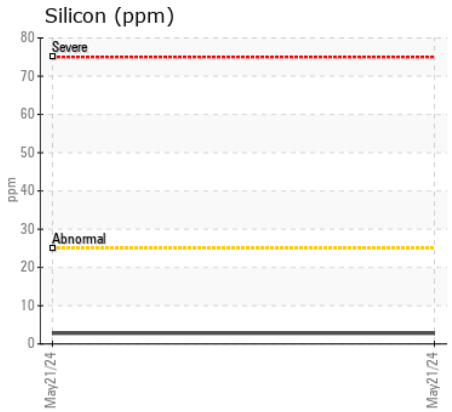

Chromium (ppm)



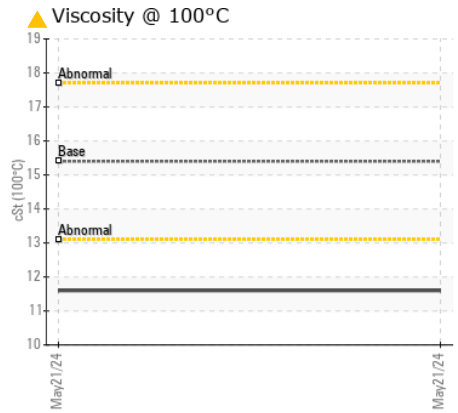

Copper (ppm)



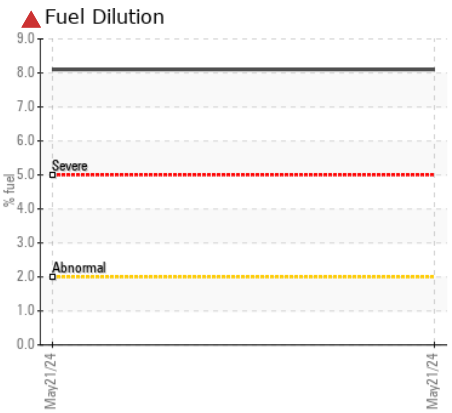

Silicon (ppm)




Viscosity @ 100°C




Fuel Dilution




ISO 17025:2017 Accredited Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
**Sample No.** : GFL0118579
**Lab Number** : 02639576
**Unique Number** : 5788738
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, PercentFuel )

**Received** : 04 Jun 2024
**Tested** : 06 Jun 2024
**Diagnosed** : 06 Jun 2024 - Wes Davis

*To discuss this sample report, contact Customer Service at 1-800-268-2131.*
*Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.*
*Validity of results and interpretation are based on the sample and information as supplied.*

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