MOB I LUBE 360 OIL DIAGNOSTICS

# OIL ANALYSIS REPORT

| | |
|---|---|
| WEAR | NORMAL |
| CONTAMINATION | MARGINAL |
| FLUID CONDITION | NORMAL |

Machine Id
**200200**
Component
**Diesel Engine**
Fluid
**PETRO CANADA DURON SHP 15W40 (26 LTR)**

## RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

## WEAR

All component wear rates are normal.

## CONTAMINATION

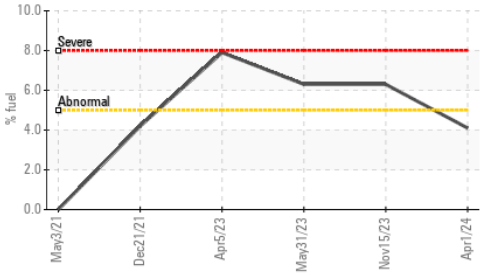
Light fuel dilution occurring. No other contaminants were detected in the oil.

## FLUID CONDITION

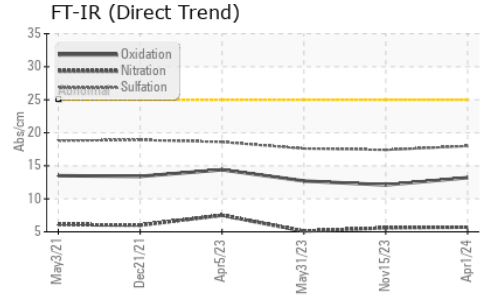
The condition of the oil is acceptable for the time in service.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **GFL0113391** | GFL0092241 | GFL0056398 |
| Sample Date | | Client Info | | **01 Apr 2024** | 15 Nov 2023 | 31 May 2023 |
| Machine Age | hrs | Client Info | | **19028** | 18428 | 17770 |
| Oil Age | hrs | Client Info | | **600** | 658 | 600 |
| Filter Age | hrs | Client Info | | **500** | 658 | 600 |
| Oil Changed | | Client Info | | **Changed** | Changed | Changed |
| Filter Changed | | Client Info | | **Changed** | Changed | Changed |
| Sample Status | | | | **MARGINAL** | ABNORMAL | ABNORMAL |
| Iron | ppm | ASTM D5185(m) | >100 | **7** | 6 | 5 |
| Chromium | ppm | ASTM D5185(m) | >20 | **0** | <1 | <1 |
| Nickel | ppm | ASTM D5185(m) | >50 | **0** | 0 | 0 |
| Titanium | ppm | ASTM D5185(m) | >2 | **<1** | 0 | <1 |
| Silver | ppm | ASTM D5185(m) | >2 | **0** | <1 | 0 |
| Aluminum | ppm | ASTM D5185(m) | >50 | **2** | 2 | 3 |
| Lead | ppm | ASTM D5185(m) | >40 | **0** | 2 | 1 |
| Copper | ppm | ASTM D5185(m) | >330 | **<1** | <1 | <1 |
| Tin | ppm | ASTM D5185(m) | >15 | **0** | 0 | 0 |
| Vanadium | ppm | ASTM D5185(m) | | **0** | 0 | 0 |
| Silicon | ppm | ASTM D5185(m) | >25 | **2** | 3 | 4 |
| Potassium | ppm | ASTM D5185(m) | >20 | **<1** | 0 | <1 |
| Fuel | % | ASTM D7593* | >5 | ▲ **4.1** | ▲ 6.3 | ▲ 6.3 |
| Water | | WC Method | >0.2 | **NEG** | NEG | NEG |
| Glycol | | WC Method | | **NEG** | NEG | NEG |
| Soot % | % | ASTM D7844* | >3 | **0** | 0 | 0 |
| Nitration | Abs/cm | ASTM D7624* | >20 | **5.7** | 5.6 | 5.1 |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | **18.0** | 17.4 | 17.6 |
| Emulsified Water | scalar | Visual* | >0.2 | **NEG** | NEG | NEG |
| Sodium | ppm | ASTM D5185(m) | | **1** | 2 | 2 |
| Boron | ppm | ASTM D5185(m) | 0 | **5** | 2 | 3 |
| Barium | ppm | ASTM D5185(m) | 0 | **0** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | 60 | **55** | 54 | 55 |
| Manganese | ppm | ASTM D5185(m) | 0 | **0** | 0 | <1 |
| Magnesium | ppm | ASTM D5185(m) | 1010 | **904** | 891 | 899 |
| Calcium | ppm | ASTM D5185(m) | 1070 | **1057** | 993 | 1084 |
| Phosphorus | ppm | ASTM D5185(m) | 1150 | **961** | 948 | 1048 |
| Zinc | ppm | ASTM D5185(m) | 1270 | **1122** | 1115 | 1140 |
| Sulfur | ppm | ASTM D5185(m) | 2060 | **2382** | 2377 | 2564 |
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | **13.2** | 12.1 | 12.7 |
| Visc @ 100°C | cSt | ASTM D7279(m) | 15.4 | **12.6** | ▲ 12.1 | ▲ 12.2 |

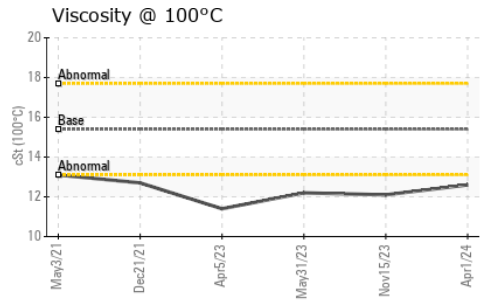
Fuel Dilution



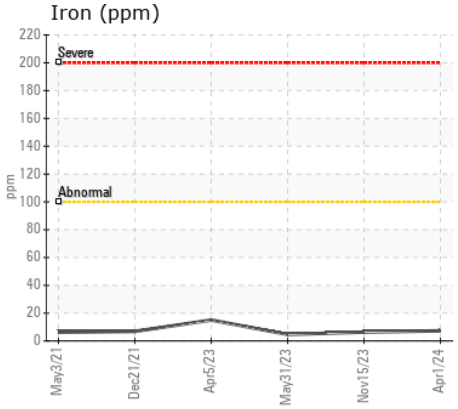

FT-IR (Direct Trend)



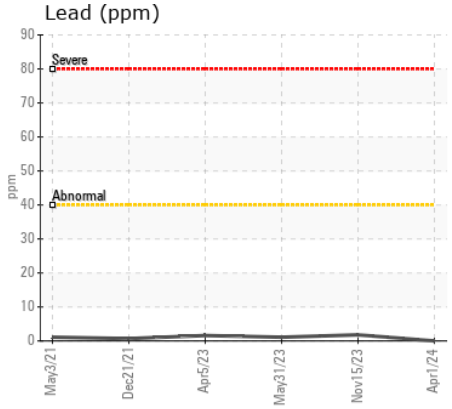

Viscosity @ 100°C



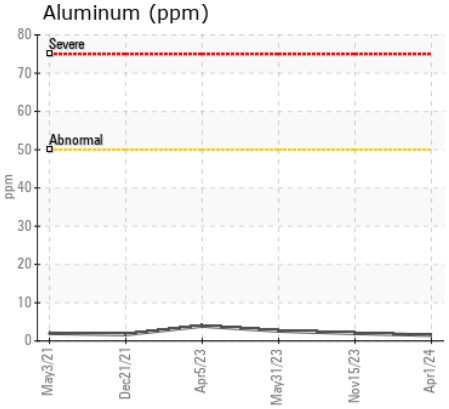

Iron (ppm)



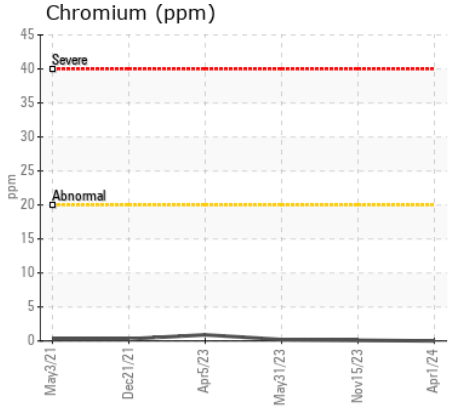

Lead (ppm)



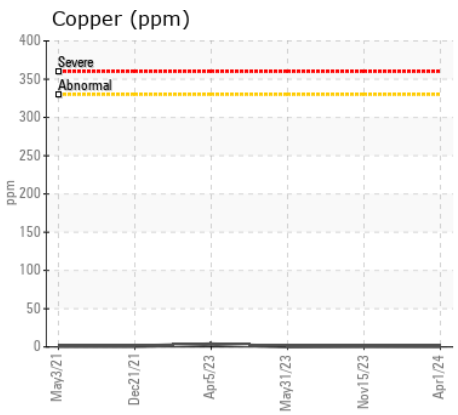

Aluminum (ppm)



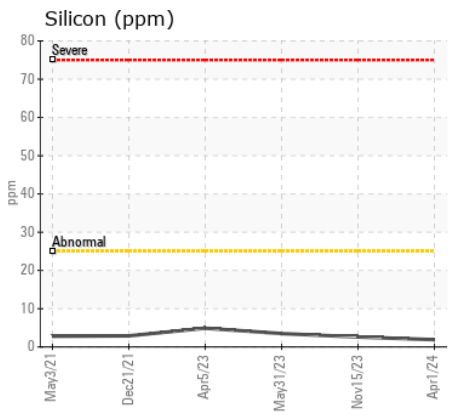

Chromium (ppm)



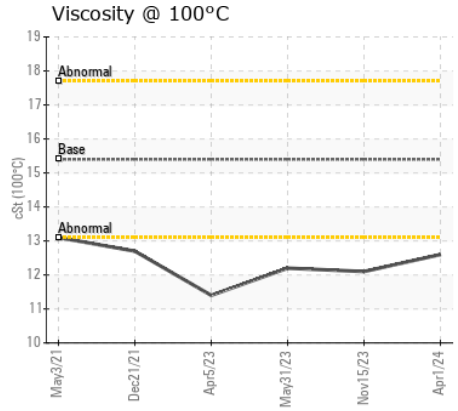

Copper (ppm)



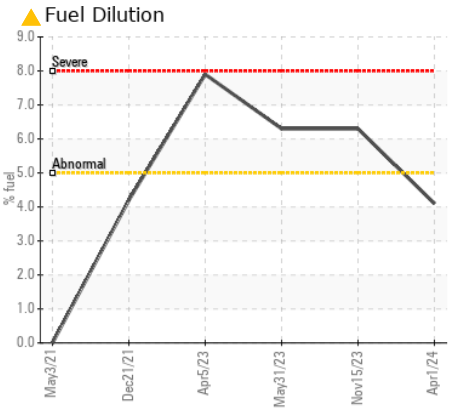

Silicon (ppm)




Viscosity @ 100°C




Fuel Dilution




ISO 17025:2017 Accredited Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
**Sample No.** : GFL0113391
**Lab Number** : 02626381
**Unique Number** : 5759513
**Test Package** : MOB 1 ( Additional Tests: PercentFuel )

**Received** : 03 Apr 2024
**Tested** : 04 Apr 2024
**Diagnosed** : 04 Apr 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.*

**GFL Environmental - 720 - Lafleche - Landfill**
17125 Lafleche Road,
Moose Creek, ON
CA K0C 1W0
Contact: Charles Bergeron
cbergeron@gflenv.com
T: (613)538-4853
F: