WEAR CONTAMINATION **FLUID CONDITION**

NORMAL NORMAL NORMAL

Machine Id

801221

Component Diesel Engine

| SAE 15W40 (GAL) | | | | | | | |
|---|------------------|----------|--------------------------------|----------------|-------------|----------|----------|
| RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
| Resample at the next service interval to monitor. | Sample Number | | Client Info | | GFL0117342 | | |
| | Sample Date | | Client Info | | 14 May 2024 | | |
| | Machine Age | hrs | Client Info | | 10988 | | |
| | Oil Age | hrs | Client Info | | 509 | | |
| | Filter Age | hrs | Client Info | | 509 | | |
| | Oil Changed | | Client Info | | Changed | | |
| | Filter Changed | | Client Info | | Changed | | |
| | Sample Status | | | | NORMAL | | |
| WEAR | Iron | ppm | ASTM D5185(m) | >100 | 7 | | |
| All component wear rates are normal. | Chromium | ppm | ASTM D5185(m) | >20 | 0 | | |
| | 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 | | |
| CONTAMINATION | Silicon | nnm | ASTM D5185(m) | > 25 | 4 | | |
| | Potassium | ppm | ASTM D5185(III) ASTM D5185(m) | | 4 <1 | | |
| There is no indication of any contamination in the oil. | Fuel | ppm | WC Method | | <1.0 | | |
| | Water | | WC Method | | NEG | | |
| | Glycol | | WC Method | 70.2 | NEG | | |
| | Soot % | % | ASTM D7844* | \3 | 0.3 | | |
| | Nitration | Abs/cm | ASTM D7624* | >20 | 7.9 | | |
| | Sulfation | Abs/.1mm | ASTM D7415* | >30 | 19.3 | | |
| | Emulsified Water | | Visual* | >0.2 | NEG | | |
| FLUID CONDITION | Sodium | | ACTM DE10E(m) | | 4 | | |
| | Boron | ppm | ASTM D5185(m) ASTM D5185(m) | >37 | 2 | | |
| The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. | Barium | ppm | ASTM D5185(m) | | 0 | | |
| | Molybdenum | ppm | ASTM D5185(m) | | 55 | | |
| | Manganese | ppm | ASTM D5185(m) | | 0 | | |
| | Magnesium | ppm | ASTM D5185(m) | | 894 | | |
| | Calcium | ppm | ASTM D5185(m) | | 1010 | | |
| | Phosphorus | ppm | ASTM D5185(m) | | 965 | | |
| | Zinc | ppm | ASTM D5185(m) | | 1138 | | |
| | Sulfur | ppm | ASTM D5185(m) | | 2384 | | |
| | Oxidation | Abs/.1mm | ASTM D7414* | >25 | 15.5 | | |
| | Base Number (BN) | | | | 8.97 | | |
| | Visc @ 100°C | cSt | ASTM D7279(m) | 14.5 | 13.3 | | |





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 550 - Rocky View County Lab Number : 02637853 Unique Number : 5787015

: GFL0117342 Test Package : MOB 2

Received : 28 May 2024 **Tested** Diagnosed

: 29 May 2024 : 29 May 2024 - Wes Davis

220 Carmek Blvd Rocky View County, AB **CA T1X 1X1**

Contact: GFL Calgary calgarymaintenance@gflenv.com T:

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.

F: (403)369-6163