

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

## City of Mount Pearl **INTERNATIONAL 20-15G**

## Component Diesel Engine

DIESEL ENGINE OIL SAE 15W40 (--- GAL)

| RECOMMENDATION  | Test             | UOM      | Method        | Limit/Abn   | Current     | History1 | History2 |
|---|------------------|----------|---------------|-------------|-------------|----------|----------|
| Resample at the next service interval to monitor.   | Sample Number    |          | Client Info   |             | OF0001007   |          |          |
|   | Sample Date      |          | Client Info   |             | 12 Dec 2023 |          |          |
|   | Machine Age      | hrs      | Client Info   |             | 0           |          |          |
|   | Oil Age          | hrs      | Client Info   |             | 1015        |          |          |
|   | Filter Age       | hrs      | Client Info   |             | 1015        |          |          |
|   | Oil Changed      |          | Client Info   |             | Changed     |          |          |
|   | Filter Changed   |          | Client Info   |             | Changed     |          |          |
|   | Sample Status    |          |               |             | NORMAL      |          |          |
| WEAR  | Iron             | ppm      | ASTM D5185(m) | <u>\</u> 75 | 36          |          |          |
|   | Chromium         | ppm      | ASTM D5185(m) |             | 2           |          |          |
| All component wear rates are normal.  | Nickel           | ppm      | ASTM D5185(m) |             | 2<br><1     |          |          |
|   | Titanium         | ppm      | ASTM D5185(m) |             | 0           |          |          |
|   | Silver           | ppm      | ASTM D5185(m) |             | ۰<br><1     |          |          |
|   | Aluminum         | ppm      | ASTM D5185(m) |             | 8           |          |          |
|   | Lead             | ppm      | ASTM D5185(m) | >25         | -<br><1     |          |          |
|   | Copper           | ppm      | ASTM D5185(m) |             | 3           |          |          |
|   | Tin              | ppm      | ASTM D5185(m) | >4          | <1          |          |          |
|   | Vanadium         | ppm      | ASTM D5185(m) |             | 0           |          |          |
|   |                  |          |               |             |             |          |          |
| CONTAMINATION   | Silicon          | ppm      | ASTM D5185(m) | >25         | 9           |          |          |
| There is no indication of any contamination in the oil.   | Potassium        | ppm      | ASTM D5185(m) |             | 0           |          |          |
|   | Fuel             |          | WC Method     |             | <1.0        |          |          |
|   | Water            |          | WC Method     | >0.2        | NEG         |          |          |
|   | Glycol           |          | WC Method     |             | NEG         |          |          |
|   | Soot %           | %        | ASTM D7844*   |             | 1           |          |          |
|   | Nitration        | Abs/cm   | ASTM D7624*   | >20         | 10.8        |          |          |
|   | Sulfation        | Abs/.1mm | ASTM D7415*   | >30         | 22.3        |          |          |
|   | Emulsified Water | scalar   | Visual*       | >0.2        | NEG         |          |          |
| FLUID CONDITION   | Sodium           | ppm      | ASTM D5185(m) | >158        | 4           |          |          |
| The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. | Boron            | ppm      | ASTM D5185(m) | 250         | 1           |          |          |
|   | Barium           | ppm      | ASTM D5185(m) | 10          | <1          |          |          |
|   | Molybdenum       | ppm      | ASTM D5185(m) | 100         | 63          |          |          |
|   | Manganese        | ppm      | ASTM D5185(m) |             | <1          |          |          |
|   | Magnesium        | ppm      | ASTM D5185(m) | 450         | 1003        |          |          |

Calcium

Zinc

Sulfur

Oxidation

Visc @ 100°C cSt

Phosphorus

ppm

ppm

ppm

ppm

Abs/.1mm Base Number (BN) mg KOH/g ASTM D2896\* 8.5

ASTM D5185(m) 3000

ASTM D5185(m) 1150

ASTM D5185(m) 4250

ASTM D7414\* >25

ASTM D5185(m)

ASTM D7279(m)

1350

14.4

Contact/Location: BILL BUTLER - FILCON

1075

977

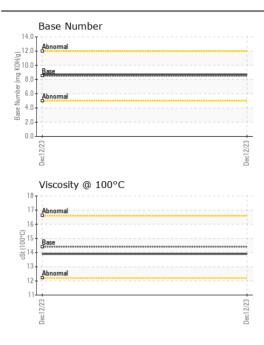
1223

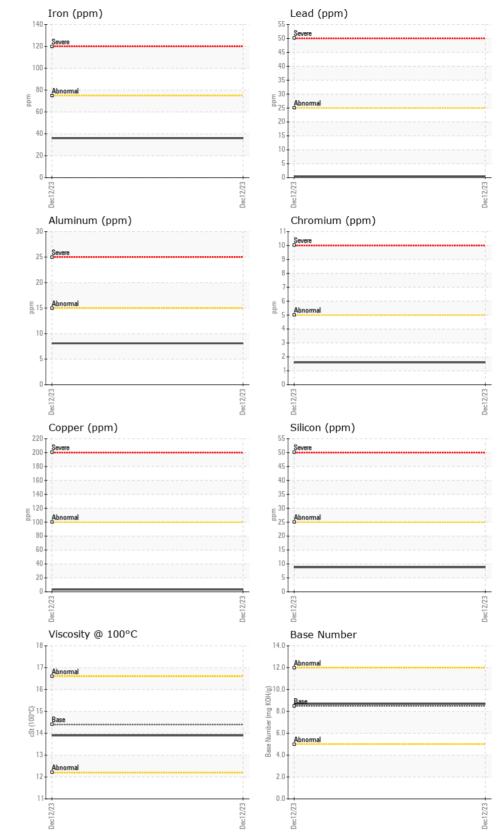
2366

17.4

8.69

13.9





Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **Oil Filtration Solutions Ltd.** CALA Sample No. : 18 Dec 2023 PO BOX 16125 : OF0001007 Received CONCEPTION BAY SOUTH, NL Lab Number : 02603707 : 20 Dec 2023 Tested ISO 17025:2017 Accredited : 20 Dec 2023 - Wes Davis CA A1X 2E2 Unique Number : 5696792 Diagnosed Laboratory Test Package : MOB 2 Contact: BILL BUTLER To discuss this sample report, contact Customer Service at 1-800-268-2131. BBUTLER@OILFILTRATIONSOLUTIONS.COM Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab. T: (709)834-8433 Validity of results and interpretation are based on the sample and information as supplied. F: (709)834-8435

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Contact/Location: BILL BUTLER - FILCON

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