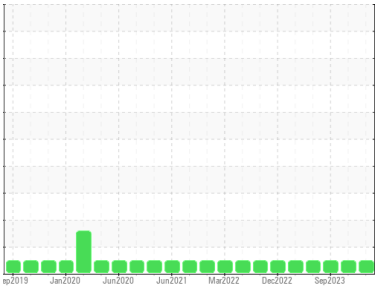
# OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
## NEW FLYER 1807
Component
**Natural Gas Engine**
Fluid
**VALVOLINE PREMIUM BLUE 9200 15W40 (--- GAL)**

## DIAGNOSIS

**Recommendation**
Resample at the next service interval to monitor.

**Wear**
All component wear rates are normal.

**Contamination**
There is no indication of any contamination in the oil.

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

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **WC0878000** | WC0878156 | WC0849965 |
| Sample Date | | Client Info | | **19 Mar 2024** | 23 Dec 2023 | 19 Sep 2023 |
| Machine Age | kms | Client Info | | **363182** | 0 | 328991 |
| Oil Age | kms | Client Info | | **0** | 0 | 0 |
| Oil Changed | | Client Info | | **N/A** | N/A | N/A |
| Sample Status | | | | **NORMAL** | NORMAL | NORMAL |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Water | | WC Method | >0.1 | **NEG** | NEG | NEG |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185(m) | >50 | **9** | 8 | 9 |
| Chromium | ppm | ASTM D5185(m) | >4 | **<1** | <1 | <1 |
| Nickel | ppm | ASTM D5185(m) | >2 | **<1** | <1 | 0 |
| Titanium | ppm | ASTM D5185(m) | | **0** | 0 | <1 |
| Silver | ppm | ASTM D5185(m) | >3 | **0** | 0 | 0 |
| Aluminum | ppm | ASTM D5185(m) | >9 | **2** | 3 | 2 |
| Lead | ppm | ASTM D5185(m) | >30 | **<1** | 2 | 5 |
| Copper | ppm | ASTM D5185(m) | >35 | **11** | 13 | 16 |
| Tin | ppm | ASTM D5185(m) | >4 | **0** | <1 | <1 |
| Antimony | ppm | ASTM D5185(m) | | **0** | 0 | 0 |
| Vanadium | ppm | ASTM D5185(m) | | **0** | 0 | 0 |
| Beryllium | ppm | ASTM D5185(m) | | **0** | 0 | 0 |
| Cadmium | ppm | ASTM D5185(m) | | **0** | 0 | 0 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185(m) | | **9** | 12 | 6 |
| Barium | ppm | ASTM D5185(m) | | **0** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | | **55** | 55 | 54 |
| Manganese | ppm | ASTM D5185(m) | | **0** | 0 | <1 |
| Magnesium | ppm | ASTM D5185(m) | | **865** | 867 | 854 |
| Calcium | ppm | ASTM D5185(m) | | **1269** | 1317 | 1298 |
| Phosphorus | ppm | ASTM D5185(m) | | **695** | 717 | 734 |
| Zinc | ppm | ASTM D5185(m) | | **901** | 912 | 925 |
| Sulfur | ppm | ASTM D5185(m) | | **1833** | 1947 | 1890 |
| Lithium | ppm | ASTM D5185(m) | | **<1** | <1 | <1 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185(m) | >+100 | **3** | 4 | 5 |
| Sodium | ppm | ASTM D5185(m) | | **4** | 4 | 3 |
| Potassium | ppm | ASTM D5185(m) | >20 | **<1** | 2 | 0 |

| INFRA-RED | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Soot % | % | ASTM D7844* | | **0** | 0 | 0 |
| Nitration | Abs/cm | ASTM D7624* | >20 | **13.4** | 12.7 | 12.8 |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | **24.3** | 24.2 | 24.6 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | **22.1** | 22.7 | 23.5 |

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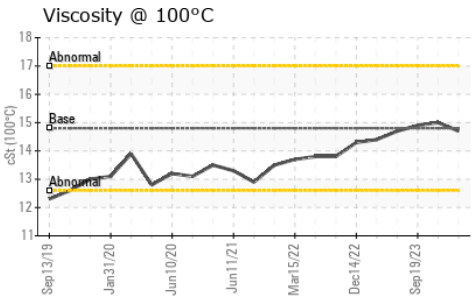
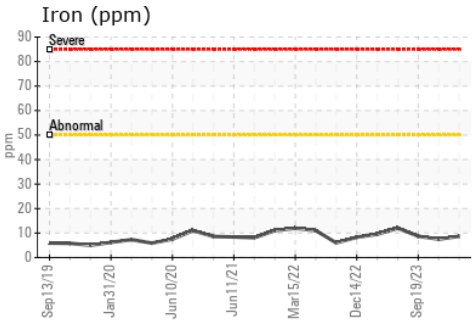
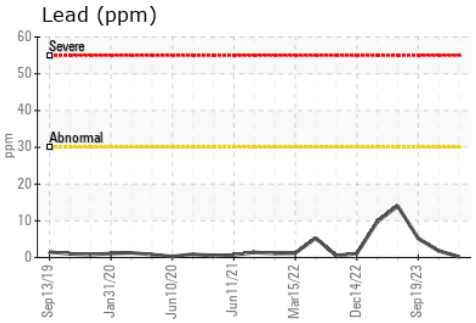


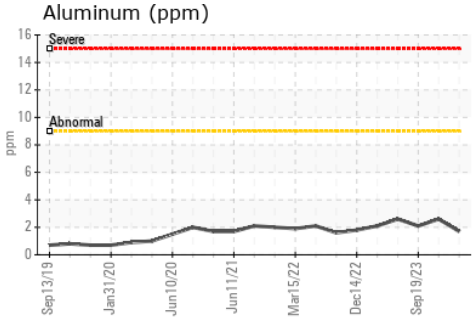

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Emulsified Water | scalar | Visual* | >0.1 | **NEG** | NEG | NEG |
| Free Water | scalar | Visual* | | **NEG** | NEG | NEG |

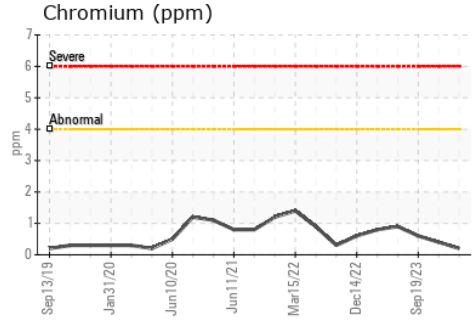
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 100°C | cSt | ASTM D7279(m) | 14.8 | **14.7** | 15.0 | 14.9 |

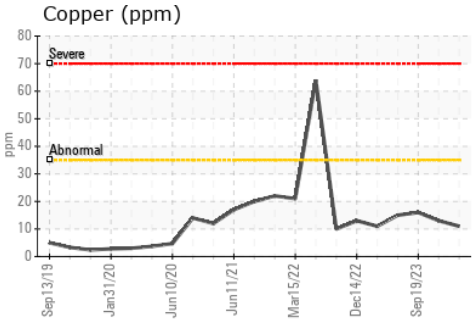
## GRAPHS

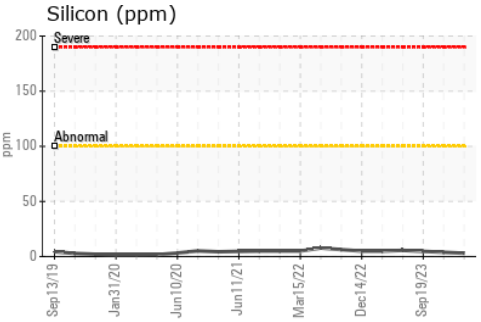


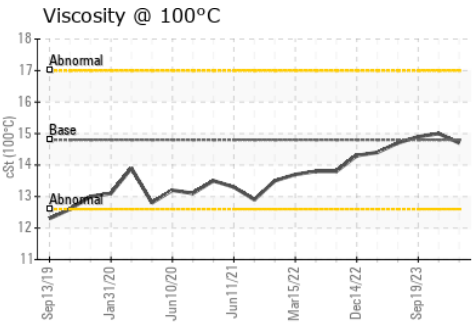



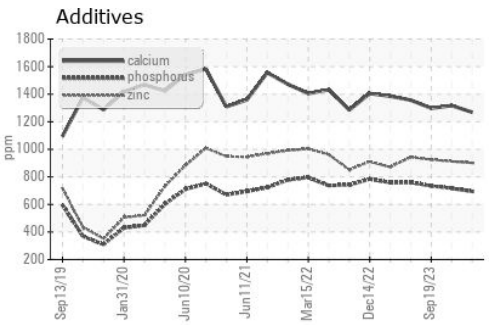




ISO 17025:2017 Accredited Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
**Sample No.** : WC0878000
**Lab Number** : 02624659
**Unique Number** : 5749778
**Test Package** : MOB 1

**Received** : 26 Mar 2024
**Tested** : 26 Mar 2024
**Diagnosed** : 26 Mar 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.*

**CITY OF HAMILTON**
2200 UPPER JAMES,, MOUNTAIN TRANSIT STOREROOM
MOUNT HOPE, ON
CA L0R 1W0
Contact: Jeff Parr
jeff.parr@hamilton.ca
T: (905)546-2424
F: (905)679-4502