



# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**NO UNIT WC0743965**

Component  
**Diesel Engine**  
Fluid  
**LUCAS 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| SAMPLE INFORMATION |             | method      | limit/base | current            | history1 | history2 |
|--------------------|-------------|-------------|------------|--------------------|----------|----------|
| Sample Number      | Client Info |             |            | <b>WC0743965</b>   | ---      | ---      |
| Sample Date        | Client Info |             |            | <b>08 Oct 2022</b> | ---      | ---      |
| Machine Age        | kms         | Client Info |            | <b>291000</b>      | ---      | ---      |
| Oil Age            | kms         | Client Info |            | <b>14500</b>       | ---      | ---      |
| Oil Changed        | Client Info |             |            | <b>Changed</b>     | ---      | ---      |
| Sample Status      |             |             |            | <b>NORMAL</b>      | ---      | ---      |

| CONTAMINATION |           | method | limit/base | current        | history1 | history2 |
|---------------|-----------|--------|------------|----------------|----------|----------|
| Fuel          | WC Method | >5     |            | <b>&lt;1.0</b> | ---      | ---      |
| Glycol        | WC Method |        |            | <b>NEG</b>     | ---      | ---      |

| WEAR METALS |     | method        | limit/base | current      | history1 | history2 |
|-------------|-----|---------------|------------|--------------|----------|----------|
| Iron        | ppm | ASTM D5185(m) | >100       | <b>9</b>     | ---      | ---      |
| Chromium    | ppm | ASTM D5185(m) | >20        | <b>0</b>     | ---      | ---      |
| Nickel      | ppm | ASTM D5185(m) | >4         | <b>0</b>     | ---      | ---      |
| Titanium    | ppm | ASTM D5185(m) |            | <b>&lt;1</b> | ---      | ---      |
| Silver      | ppm | ASTM D5185(m) | >3         | <b>0</b>     | ---      | ---      |
| Aluminum    | ppm | ASTM D5185(m) | >20        | <b>3</b>     | ---      | ---      |
| Lead        | ppm | ASTM D5185(m) | >40        | <b>0</b>     | ---      | ---      |
| Copper      | ppm | ASTM D5185(m) | >330       | <b>&lt;1</b> | ---      | ---      |
| Tin         | ppm | ASTM D5185(m) | >15        | <b>0</b>     | ---      | ---      |
| Antimony    | ppm | ASTM D5185(m) |            | <b>0</b>     | ---      | ---      |
| Vanadium    | ppm | ASTM D5185(m) |            | <b>0</b>     | ---      | ---      |
| Beryllium   | ppm | ASTM D5185(m) |            | <b>0</b>     | ---      | ---      |
| Cadmium     | ppm | ASTM D5185(m) |            | <b>0</b>     | ---      | ---      |

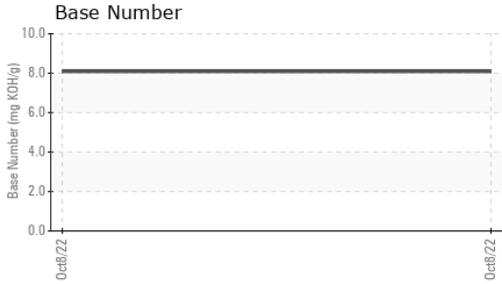
| ADDITIVES  |     | method        | limit/base | current      | history1 | history2 |
|------------|-----|---------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185(m) |            | <b>322</b>   | ---      | ---      |
| Barium     | ppm | ASTM D5185(m) |            | <b>0</b>     | ---      | ---      |
| Molybdenum | ppm | ASTM D5185(m) |            | <b>111</b>   | ---      | ---      |
| Manganese  | ppm | ASTM D5185(m) |            | <b>&lt;1</b> | ---      | ---      |
| Magnesium  | ppm | ASTM D5185(m) |            | <b>565</b>   | ---      | ---      |
| Calcium    | ppm | ASTM D5185(m) |            | <b>1457</b>  | ---      | ---      |
| Phosphorus | ppm | ASTM D5185(m) |            | <b>921</b>   | ---      | ---      |
| Zinc       | ppm | ASTM D5185(m) |            | <b>1010</b>  | ---      | ---      |
| Sulfur     | ppm | ASTM D5185(m) |            | <b>2475</b>  | ---      | ---      |
| Lithium    | ppm | ASTM D5185(m) |            | <b>&lt;1</b> | ---      | ---      |

| CONTAMINANTS |     | method        | limit/base | current      | history1 | history2 |
|--------------|-----|---------------|------------|--------------|----------|----------|
| Silicon      | ppm | ASTM D5185(m) | >25        | <b>6</b>     | ---      | ---      |
| Sodium       | ppm | ASTM D5185(m) |            | <b>3</b>     | ---      | ---      |
| Potassium    | ppm | ASTM D5185(m) | >20        | <b>&lt;1</b> | ---      | ---      |

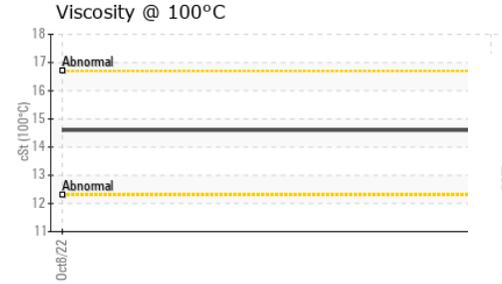
| INFRA-RED |          | method      | limit/base | current     | history1 | history2 |
|-----------|----------|-------------|------------|-------------|----------|----------|
| Soot %    | %        | ASTM D7844* | >3         | <b>0</b>    | ---      | ---      |
| Nitration | Abs/cm   | ASTM D7624* | >20        | <b>7.4</b>  | ---      | ---      |
| Sulfation | Abs/.1mm | ASTM D7415* | >30        | <b>28.2</b> | ---      | ---      |



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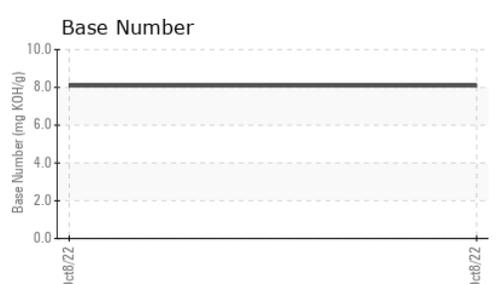
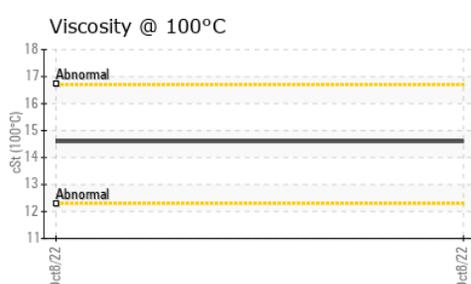
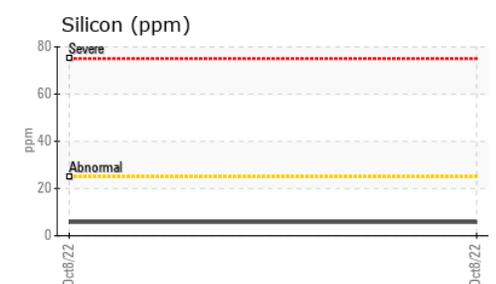
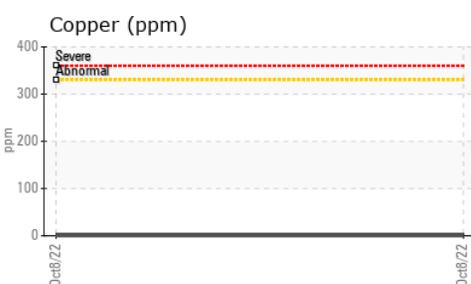
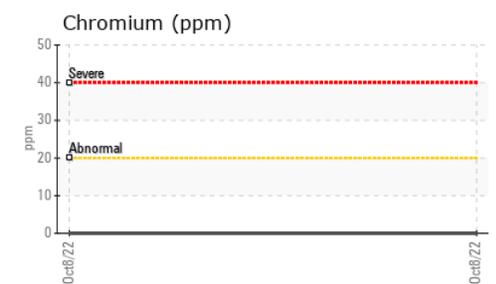
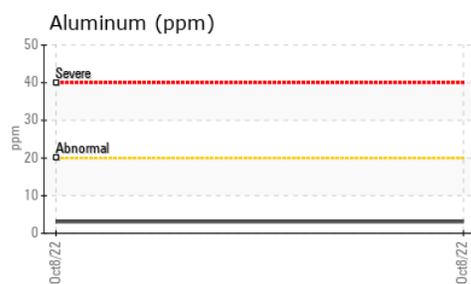
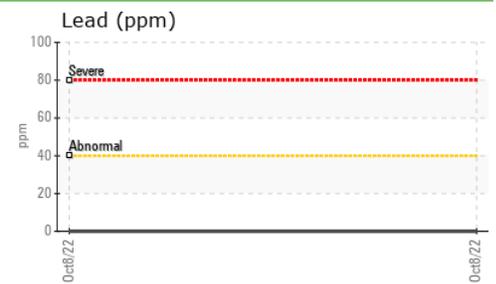
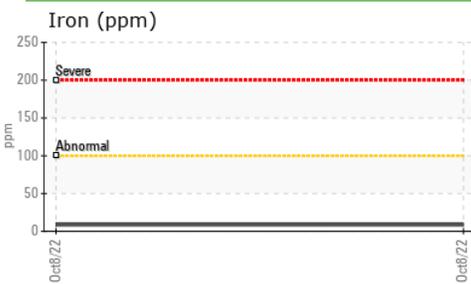
| FLUID DEGRADATION | method   | limit/base  | current | history1 | history2 |
|-------------------|----------|-------------|---------|----------|----------|
| Oxidation         | Abs/.1mm | ASTM D7414* | >25     | 26.5     | ---      |
| Base Number (BN)  | mg KOH/g | ASTM D2896* |         | 8.09     | ---      |



| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Emulsified Water | scalar | Visual*    | >0.2    | NEG      | ---      |
| Free Water       | scalar | Visual*    |         | NEG      | ---      |

| FLUID PROPERTIES | method | limit/base    | current | history1 | history2 |
|------------------|--------|---------------|---------|----------|----------|
| Visc @ 100°C     | cSt    | ASTM D7279(m) |         | 14.6     | ---      |

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0743965 **Received** : 28 Nov 2022  
**Lab Number** : **02525074** **Diagnosed** : 29 Nov 2022  
**Unique Number** : 5490055 **Diagnostician** : Kevin Marson  
**Test Package** : MOB 2

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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.