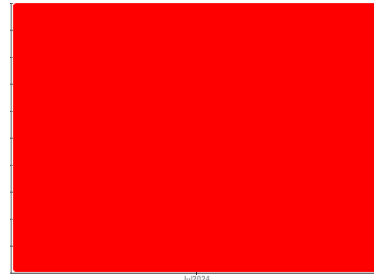




# PROBLEM SUMMARY

Sample Rating Trend



VISUAL METAL



Machine Id  
**K3 BULLGEAR**  
Component  
**Unknown Component**  
Fluid  
**KL 300 (--- GAL)**

## COMPONENT CONDITION SUMMARY



## RECOMMENDATION

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. We advise that you check for visible metal particles in the sample. Wear particles and/or ppm levels are abnormally high indicating the need to review OEM limits with attention to components that may generate this type of wear. Include all test results and maintenance activities that have been performed since the abnormal condition was first detected in this review. We recommend that you drain the sample from the component if this has not already been done. Re-sampling is suggested to confirm test results prior to significant maintenance activities being performed. Please indicate that this is a resample on your Sample Information Form (SIF). NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please note that the sample was too thick to perform some of the normal laboratory tests.

## PROBLEMATIC TEST RESULTS

| Sample Status |        |             |      | SEVERE  | ---      | ---      |
|---------------|--------|-------------|------|---------|----------|----------|
| PQ            |        | ASTM D8184* |      | ▲ 5559  | ---      | ---      |
| White Metal   | scalar | Visual*     | NONE | ▲ MDHVV | ---      | ---      |
| PrtFilter     |        |             |      |         | no image | no image |

Customer Id: CARDUN  
 Sample No.: WC0959790  
 Lab Number: 02647706  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Kevin Marson +1 (289)291-4644 x4644  
[Kevin.Marson@wearcheck.com](mailto:Kevin.Marson@wearcheck.com)

To change component or sample information:  
 Gloria Gonzalez +1 (289)291-4643 x4643  
[gloria.gonzalez@wearcheck.com](mailto:gloria.gonzalez@wearcheck.com)

## RECOMMENDED ACTIONS

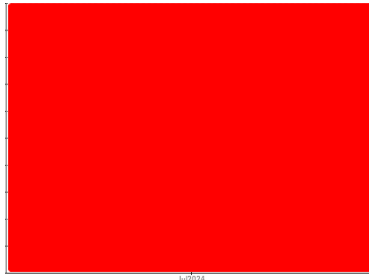
| Action                 | Status | Date | Done By | Description   |
|------------------------|--------|------|---------|---|
| Monitor                | ---    | ---  | ?       | Wear particles and/or ppm levels are abnormally high indicating the need to review OEM limits with attention to components that may generate this type of wear. Include all test results and maintenance activities that have been performed since the abnormal condition was first detected in this review.                                  |
| Change Fluid           | ---    | ---  | ?       | We recommend that you drain the sample from the component if this has not already been done.  |
| Resample               | ---    | ---  | ?       | Re-sampling is suggested to confirm test results prior to significant maintenance activities being performed. Please indicate that this is a resample on your Sample Information Form (SIF).  |
| Alert                  | ---    | ---  | ?       | Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. |
| Information Required   | ---    | ---  | ?       | Please specify the brand, type, and viscosity of the oil on your next sample. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.  |
| Check For Visual Metal | ---    | ---  | ?       | We advise that you check for visible metal particles in the sample.   |

## HISTORICAL DIAGNOSIS



# OIL ANALYSIS REPORT

Sample Rating Trend



VISUAL METAL



Machine Id  
**K3 BULLGEAR**  
Component  
**Unknown Component**  
Fluid  
**KL 300 (--- GAL)**

## DIAGNOSIS

### ▲ Recommendation

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. We advise that you check for visible metal particles in the sample. Wear particles and/or ppm levels are abnormally high indicating the need to review OEM limits with attention to components that may generate this type of wear. Include all test results and maintenance activities that have been performed since the abnormal condition was first detected in this review. We recommend that you drain the sample from the component if this has not already been done. Re-sampling is suggested to confirm test results prior to significant maintenance activities being performed. Please indicate that this is a resample on your Sample Information Form (SIF). NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please note that the sample was too thick to perform some of the normal laboratory tests.

### ▲ Wear

PQ levels are severe. High concentration of visible metal present. The very high ferrous density (PQ) index indicates that severe wear is occurring. Abnormal wear is indicated.

### Contamination

There is no indication of any contamination in the sample.

### Fluid Condition

The sample is no longer serviceable as a result of the abnormal and/or severe wear.

| SAMPLE INFORMATION |             | method      | limit/base | current            | history1 | history2 |
|--------------------|-------------|-------------|------------|--------------------|----------|----------|
| Sample Number      | Client Info |             |            | <b>WC0959790</b>   | ---      | ---      |
| Sample Date        | Client Info |             |            | <b>06 Jul 2024</b> | ---      | ---      |
| Machine Age        | hrs         | Client Info |            | <b>0</b>           | ---      | ---      |
| Oil Age            | hrs         | Client Info |            | <b>0</b>           | ---      | ---      |
| Oil Changed        | Client Info |             |            | <b>N/A</b>         | ---      | ---      |
| Sample Status      |             |             |            | <b>SEVERE</b>      | ---      | ---      |

| CONTAMINATION |           | method | limit/base | current    | history1 | history2 |
|---------------|-----------|--------|------------|------------|----------|----------|
| Water         | WC Method |        |            | <b>NEG</b> | ---      | ---      |

| WEAR METALS |     | method        | limit/base | current       | history1 | history2 |
|-------------|-----|---------------|------------|---------------|----------|----------|
| PQ          |     | ASTM D8184*   |            | <b>▲ 5559</b> | ---      | ---      |
| Iron        | ppm | ASTM D5185(m) |            | <b>108</b>    | ---      | ---      |
| Chromium    | ppm | ASTM D5185(m) |            | <b>&lt;1</b>  | ---      | ---      |
| Nickel      | ppm | ASTM D5185(m) |            | <b>1</b>      | ---      | ---      |
| Titanium    | ppm | ASTM D5185(m) |            | <b>0</b>      | ---      | ---      |
| Silver      | ppm | ASTM D5185(m) |            | <b>0</b>      | ---      | ---      |
| Aluminum    | ppm | ASTM D5185(m) |            | <b>2</b>      | ---      | ---      |
| Lead        | ppm | ASTM D5185(m) |            | <b>0</b>      | ---      | ---      |
| Copper      | ppm | ASTM D5185(m) |            | <b>2</b>      | ---      | ---      |
| Tin         | ppm | ASTM D5185(m) |            | <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>      | ---      | ---      |

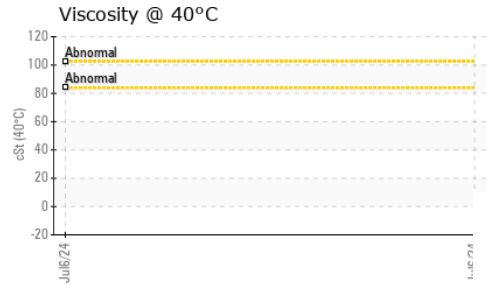
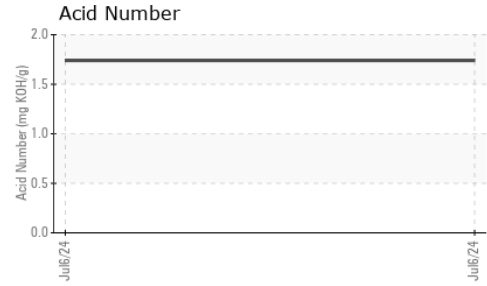
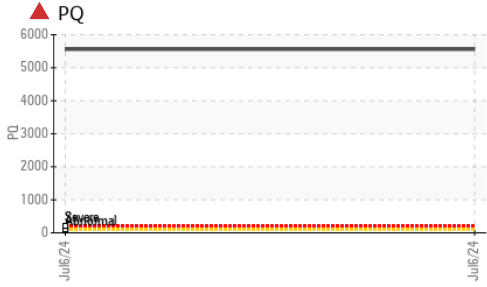
| ADDITIVES  |     | method        | limit/base | current      | history1 | history2 |
|------------|-----|---------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185(m) |            | <b>&lt;1</b> | ---      | ---      |
| Barium     | ppm | ASTM D5185(m) |            | <b>&lt;1</b> | ---      | ---      |
| Molybdenum | ppm | ASTM D5185(m) |            | <b>212</b>   | ---      | ---      |
| Manganese  | ppm | ASTM D5185(m) |            | <b>&lt;1</b> | ---      | ---      |
| Magnesium  | ppm | ASTM D5185(m) |            | <b>21</b>    | ---      | ---      |
| Calcium    | ppm | ASTM D5185(m) |            | <b>75</b>    | ---      | ---      |
| Phosphorus | ppm | ASTM D5185(m) |            | <b>190</b>   | ---      | ---      |
| Zinc       | ppm | ASTM D5185(m) |            | <b>2</b>     | ---      | ---      |
| Sulfur     | ppm | ASTM D5185(m) |            | <b>693</b>   | ---      | ---      |
| Lithium    | ppm | ASTM D5185(m) |            | <b>&lt;1</b> | ---      | ---      |

| CONTAMINANTS |     | method        | limit/base | current      | history1 | history2 |
|--------------|-----|---------------|------------|--------------|----------|----------|
| Silicon      | ppm | ASTM D5185(m) |            | <b>8</b>     | ---      | ---      |
| Sodium       | ppm | ASTM D5185(m) |            | <b>2</b>     | ---      | ---      |
| Potassium    | ppm | ASTM D5185(m) | >20        | <b>&lt;1</b> | ---      | ---      |



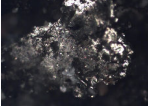
| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D974* |            | <b>1.74</b> | ---      | ---      |



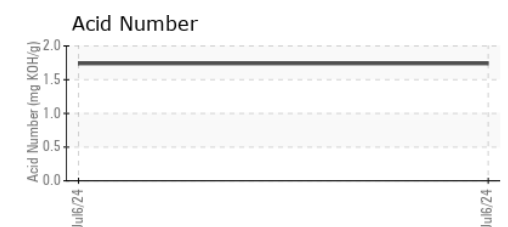
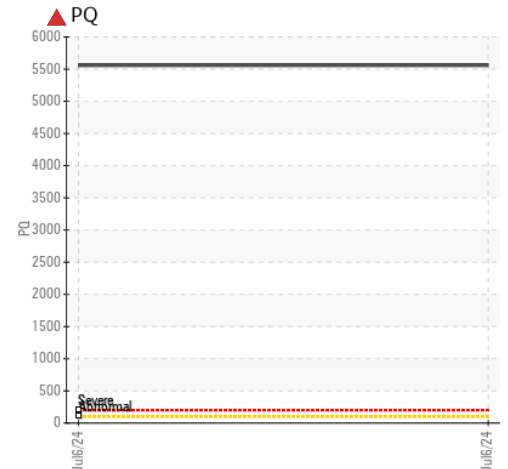
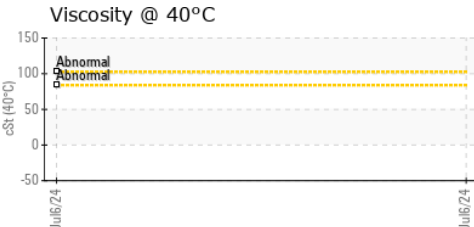
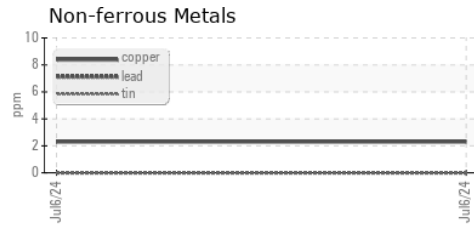
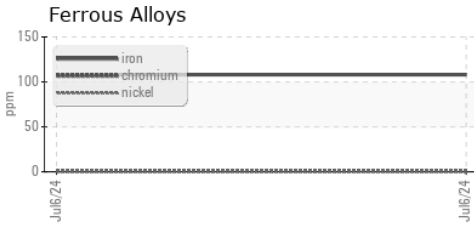
# OIL ANALYSIS REPORT



| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | Visual*    | NONE    | ▲ MDHVY  | ---      |
| Yellow Metal     | scalar | Visual*    | NONE    | NONE     | ---      |
| Precipitate      | scalar | Visual*    | NONE    | NONE     | ---      |
| Silt             | scalar | Visual*    | NONE    | NONE     | ---      |
| Debris           | scalar | Visual*    | NONE    | NONE     | ---      |
| Sand/Dirt        | scalar | Visual*    | NONE    | NONE     | ---      |
| Appearance       | scalar | Visual*    | NORML   | NORML    | ---      |
| Odor             | scalar | Visual*    | NORML   | NORML    | ---      |
| Emulsified Water | scalar | Visual*    | NEG     | ---      | ---      |
| Free Water       | scalar | Visual*    | NEG     | ---      | ---      |

| SAMPLE IMAGES | method | limit/base | current   | history1 | history2 |
|---------------|--------|------------|---|----------|----------|
| Color         |        |            |  | no image | no image |
| Bottom        |        |            |  | no image | no image |
| PrtFilter     |        |            |  | no image | no image |

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **Carmeuse Lime (Canada) Ltd Dundas Operations**  
**Sample No.** : WC0959790 **Received** : 12 Jul 2024 **R.R. #2, 600 5 Hwy W**  
**Lab Number** : 02647706 **Tested** : 16 Jul 2024 **Dundas, ON**  
**Unique Number** : 5813258 **Diagnosed** : 16 Jul 2024 - Kevin Marson **CA L9H 5E2**  
**Test Package** : IND 2 ( Additional Tests: Bottom, BottomAnalysis, FILTERPATCH, TAN Man ) **Contact: Harsh Murria**  
**harsh.murria@carmeuse.com**

To discuss this sample report, contact Customer Service at 1-800-268-2131. T: (905)628-7651  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab. F:  
 Validity of results and interpretation are based on the sample and information as supplied.