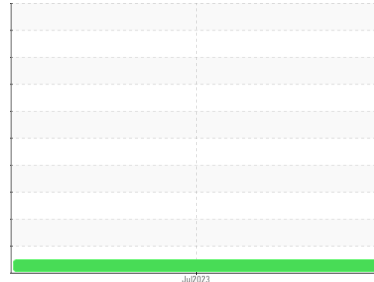




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**HC2237**

Component  
**Gearbox**

Fluid  
**GEAR OIL ISO 220 (--- 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 |             | <b>WC0746531</b>   | ---      | ---      |
| Sample Date   | Client Info |             | <b>19 Jul 2023</b> | ---      | ---      |
| Machine Age   | hrs         | Client Info | <b>1146</b>        | ---      | ---      |
| Oil Age       | hrs         | Client Info | <b>0</b>           | ---      | ---      |
| Oil Changed   | Client Info |             | <b>Changed</b>     | ---      | ---      |
| Sample Status |             |             | <b>NORMAL</b>      | ---      | ---      |

## WEAR METALS

|          | method | limit/base       | current      | history1 | history2 |
|----------|--------|------------------|--------------|----------|----------|
| Iron     | ppm    | ASTM D5185m >200 | <b>63</b>    | ---      | ---      |
| Chromium | ppm    | ASTM D5185m >10  | <b>1</b>     | ---      | ---      |
| Nickel   | ppm    | ASTM D5185m >10  | <b>0</b>     | ---      | ---      |
| Titanium | ppm    | ASTM D5185m      | <b>0</b>     | ---      | ---      |
| Silver   | ppm    | ASTM D5185m      | <b>0</b>     | ---      | ---      |
| Aluminum | ppm    | ASTM D5185m >25  | <b>16</b>    | ---      | ---      |
| Lead     | ppm    | ASTM D5185m >50  | <b>0</b>     | ---      | ---      |
| Copper   | ppm    | ASTM D5185m >200 | <b>2</b>     | ---      | ---      |
| Tin      | ppm    | ASTM D5185m >10  | <b>&lt;1</b> | ---      | ---      |
| Vanadium | ppm    | ASTM D5185m      | <b>&lt;1</b> | ---      | ---      |
| Cadmium  | ppm    | ASTM D5185m      | <b>&lt;1</b> | ---      | ---      |

## ADDITIVES

|            | method | limit/base        | current     | history1 | history2 |
|------------|--------|-------------------|-------------|----------|----------|
| Boron      | ppm    | ASTM D5185m 50    | <b>3</b>    | ---      | ---      |
| Barium     | ppm    | ASTM D5185m 15    | <b>1</b>    | ---      | ---      |
| Molybdenum | ppm    | ASTM D5185m 15    | <b>0</b>    | ---      | ---      |
| Manganese  | ppm    | ASTM D5185m       | <b>1</b>    | ---      | ---      |
| Magnesium  | ppm    | ASTM D5185m 50    | <b>2</b>    | ---      | ---      |
| Calcium    | ppm    | ASTM D5185m 50    | <b>7</b>    | ---      | ---      |
| Phosphorus | ppm    | ASTM D5185m 350   | <b>41</b>   | ---      | ---      |
| Zinc       | ppm    | ASTM D5185m 100   | <b>15</b>   | ---      | ---      |
| Sulfur     | ppm    | ASTM D5185m 12500 | <b>2244</b> | ---      | ---      |

## CONTAMINANTS

|           | method | limit/base      | current   | history1 | history2 |
|-----------|--------|-----------------|-----------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >50 | <b>21</b> | ---      | ---      |
| Sodium    | ppm    | ASTM D5185m     | <b>9</b>  | ---      | ---      |
| Potassium | ppm    | ASTM D5185m >20 | <b>2</b>  | ---      | ---      |

## VISUAL

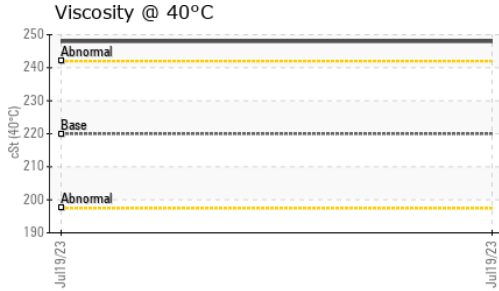
|                  | method | limit/base    | current      | history1 | history2 |
|------------------|--------|---------------|--------------|----------|----------|
| White Metal      | scalar | *Visual NONE  | <b>NONE</b>  | ---      | ---      |
| Yellow Metal     | scalar | *Visual NONE  | <b>NONE</b>  | ---      | ---      |
| Precipitate      | scalar | *Visual NONE  | <b>NONE</b>  | ---      | ---      |
| Silt             | scalar | *Visual NONE  | <b>NONE</b>  | ---      | ---      |
| Debris           | scalar | *Visual NONE  | <b>NONE</b>  | ---      | ---      |
| Sand/Dirt        | scalar | *Visual NONE  | <b>NONE</b>  | ---      | ---      |
| Appearance       | scalar | *Visual NORML | <b>NORML</b> | ---      | ---      |
| Odor             | scalar | *Visual NORML | <b>NORML</b> | ---      | ---      |
| Emulsified Water | scalar | *Visual >0.2  | <b>NEG</b>   | ---      | ---      |
| Free Water       | scalar | *Visual       | <b>NEG</b>   | ---      | ---      |

## FLUID PROPERTIES

|             | method | limit/base    | current    | history1 | history2 |
|-------------|--------|---------------|------------|----------|----------|
| Visc @ 40°C | cSt    | ASTM D445 220 | <b>248</b> | ---      | ---      |

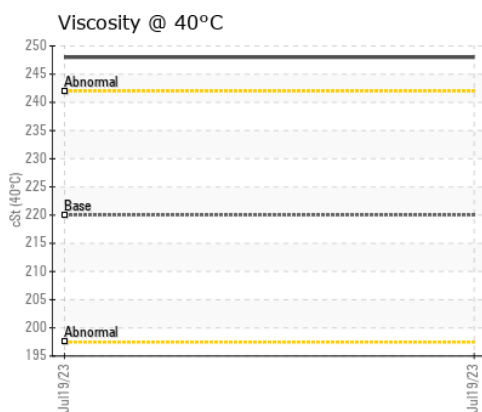
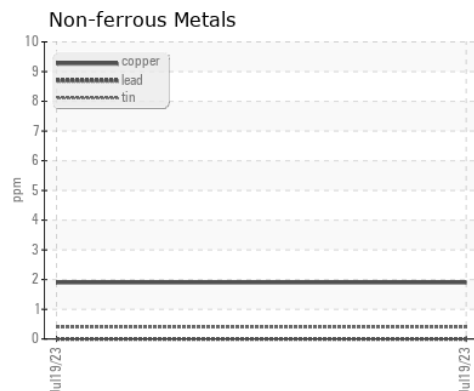
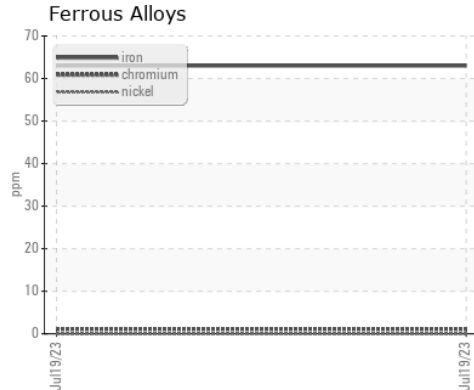


# OIL ANALYSIS REPORT



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

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0746531      **Received** : 15 Aug 2023  
**Lab Number** : 05925629      **Diagnosed** : 17 Aug 2023  
**Unique Number** : 10605576      **Diagnostician** : Don Baldrige  
**Test Package** : CONST

**BUCKNER - WILLIS**  
 18123 HWY 75 NORTH  
 WILLIS, TX  
 US 77378  
 Contact: JOHN HAWKINS  
 johnh@bucknercompanies.com  
 T:  
 F:

To discuss this sample report, contact Customer Service at 1-800-237-1369.  
 \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.  
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)