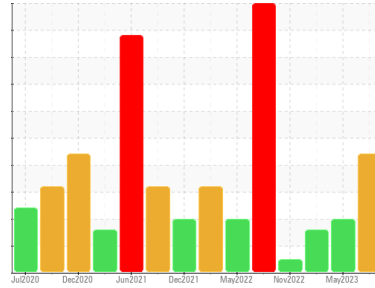


# PROBLEM SUMMARY

Area  
**[98405046]**  
 Machine Id  
**KR-GR-000825 - DOUFLEX B2 CRANE**  
 Component  
**Hoist**  
 Fluid  
**MOBIL GLYGOYLE HE ISO 460 (--- GAL)**

Sample Rating Trend

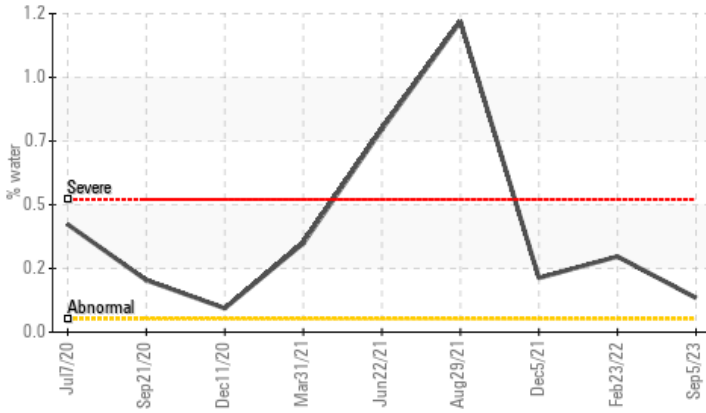


**WATER**

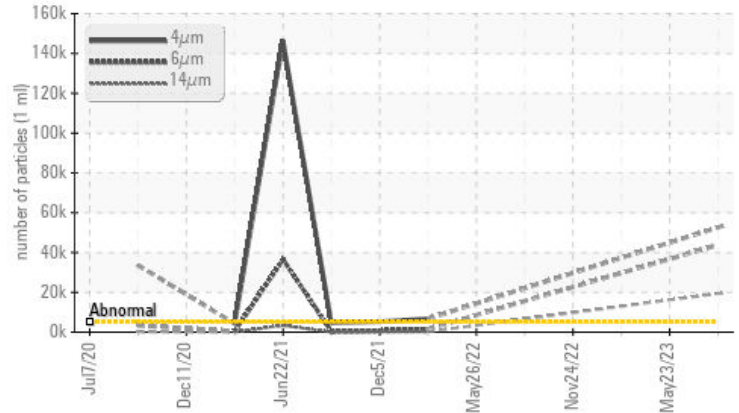


## COMPONENT CONDITION SUMMARY

▲ Water



▲ Particle Trend



## RECOMMENDATION

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

| Sample Status   |     |              |           | <b>ABNORMAL</b>   | ABNORMAL | ABNORMAL |
|-----------------|-----|--------------|-----------|-------------------|----------|----------|
| Water           | %   | ASTM D6304   | >0.05     | ▲ <b>0.129</b>    | ---      | ---      |
| ppm Water       | ppm | ASTM D6304   | >500      | ▲ <b>1290</b>     | ---      | ---      |
| Particles >4µm  |     | ASTM D7647   | >5000     | ▲ <b>52613</b>    | ---      | ---      |
| Particles >6µm  |     | ASTM D7647   | >1300     | ▲ <b>43811</b>    | ---      | ---      |
| Particles >14µm |     | ASTM D7647   | >160      | ▲ <b>19350</b>    | ---      | ---      |
| Particles >21µm |     | ASTM D7647   | >40       | ▲ <b>10125</b>    | ---      | ---      |
| Particles >38µm |     | ASTM D7647   | >10       | ▲ <b>1773</b>     | ---      | ---      |
| Particles >71µm |     | ASTM D7647   | >3        | ▲ <b>114</b>      | ---      | ---      |
| Oil Cleanliness |     | ISO 4406 (c) | >19/17/14 | ▲ <b>23/23/21</b> | ---      | ---      |

Customer Id: KRAKIR  
 Sample No.: PCA0102560  
 Lab Number: 05945710  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Jonathan Hester +1 919-379-4092 x4092  
[jhester@wearcheckusa.com](mailto:jhester@wearcheckusa.com)

To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

| Action        | Status | Date | Done By | Description   |
|---------------|--------|------|---------|---|
| Change Filter | ---    | ---  | ?       | We recommend you service the filters on this component if applicable. |

## HISTORICAL DIAGNOSIS

### 23 May 2023 Diag: Jonathan Hester

DIRT



No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Elemental level of silicon (Si) above normal indicating ingress of seal material. The oil viscosity is higher than normal. The condition of the oil is acceptable for the time in service.

view report



### 22 Feb 2023 Diag: Don Baldrige

DIRT



No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Elemental level of silicon (Si) above normal. The condition of the oil is acceptable for the time in service.

view report



### 24 Nov 2022 Diag: Jonathan Hester

NORMAL



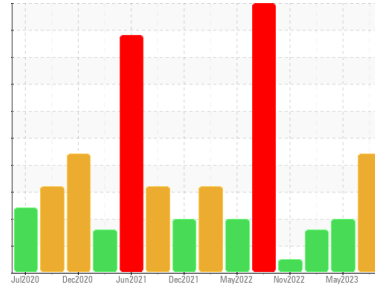
Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

view report



# OIL ANALYSIS REPORT

Sample Rating Trend



**WATER**



Area  
**[98405046]**  
 Machine Id  
**KR-GR-000825 - DOUFLEX B2 CRANE**  
 Component  
**Hoist**  
 Fluid  
**MOBIL GLYGOYLE HE ISO 460 (--- GAL)**

## DIAGNOSIS

### Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is a high amount of particulates present in the oil. There is a light concentration of water present in the oil.

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

| method        | limit/base  | current            | history1    | history2    |
|---------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | <b>PCA0102560</b>  | PCA0097176  | PCA0090207  |
| Sample Date   | Client Info | <b>05 Sep 2023</b> | 23 May 2023 | 22 Feb 2023 |
| Machine Age   | hrs         | <b>0</b>           | 0           | 0           |
| Oil Age       | hrs         | <b>0</b>           | 0           | 0           |
| Oil Changed   | Client Info | <b>N/A</b>         | N/A         | N/A         |
| Sample Status |             | <b>ABNORMAL</b>    | ABNORMAL    | ABNORMAL    |

## WEAR METALS

| method   | limit/base | current         | history1     | history2 |    |
|----------|------------|-----------------|--------------|----------|----|
| Iron     | ppm        | ASTM D5185m >20 | <b>11</b>    | 9        | 4  |
| Chromium | ppm        | ASTM D5185m >20 | <b>0</b>     | <1       | <1 |
| Nickel   | ppm        | ASTM D5185m >20 | <b>0</b>     | <1       | 0  |
| Titanium | ppm        | ASTM D5185m     | <b>0</b>     | 0        | 0  |
| Silver   | ppm        | ASTM D5185m     | <b>0</b>     | 0        | 0  |
| Aluminum | ppm        | ASTM D5185m >20 | <b>1</b>     | <1       | <1 |
| Lead     | ppm        | ASTM D5185m >20 | <b>0</b>     | 0        | 0  |
| Copper   | ppm        | ASTM D5185m >20 | <b>&lt;1</b> | <1       | <1 |
| Tin      | ppm        | ASTM D5185m >20 | <b>0</b>     | 0        | 0  |
| Vanadium | ppm        | ASTM D5185m     | <b>&lt;1</b> | 0        | 0  |
| Cadmium  | ppm        | ASTM D5185m     | <b>0</b>     | 0        | 0  |

## ADDITIVES

| method     | limit/base | current     | history1    | history2 |     |
|------------|------------|-------------|-------------|----------|-----|
| Boron      | ppm        | ASTM D5185m | <b>0</b>    | 0        | 0   |
| Barium     | ppm        | ASTM D5185m | <b>0</b>    | 0        | 0   |
| Molybdenum | ppm        | ASTM D5185m | <b>48</b>   | 13       | 1   |
| Manganese  | ppm        | ASTM D5185m | <b>0</b>    | 0        | 0   |
| Magnesium  | ppm        | ASTM D5185m | <b>0</b>    | <1       | <1  |
| Calcium    | ppm        | ASTM D5185m | <b>7</b>    | 5        | 9   |
| Phosphorus | ppm        | ASTM D5185m | <b>392</b>  | 319      | 75  |
| Zinc       | ppm        | ASTM D5185m | <b>0</b>    | 5        | 39  |
| Sulfur     | ppm        | ASTM D5185m | <b>2689</b> | 653      | 531 |

## CONTAMINANTS

| method    | limit/base | current          | history1       | history2 |      |
|-----------|------------|------------------|----------------|----------|------|
| Silicon   | ppm        | ASTM D5185m >15  | <b>6</b>       | ▲ 21     | ▲ 17 |
| Sodium    | ppm        | ASTM D5185m      | <b>1</b>       | 3        | 3    |
| Potassium | ppm        | ASTM D5185m >20  | <b>&lt;1</b>   | 2        | 0    |
| Water     | %          | ASTM D6304 >0.05 | <b>▲ 0.129</b> | ---      | ---  |
| ppm Water | ppm        | ASTM D6304 >500  | <b>▲ 1290</b>  | ---      | ---  |

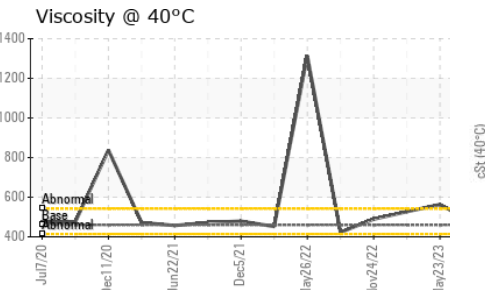
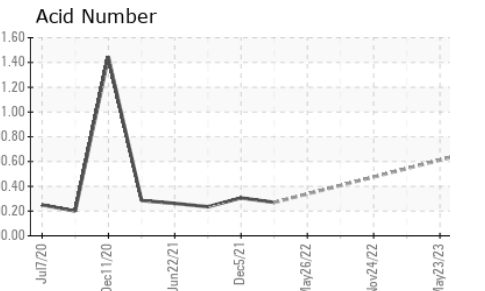
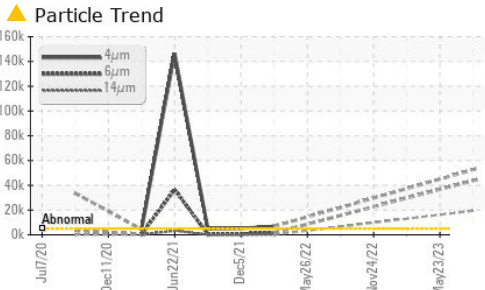
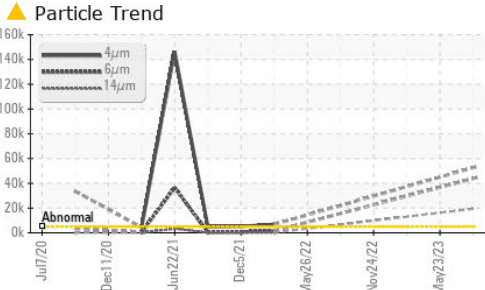
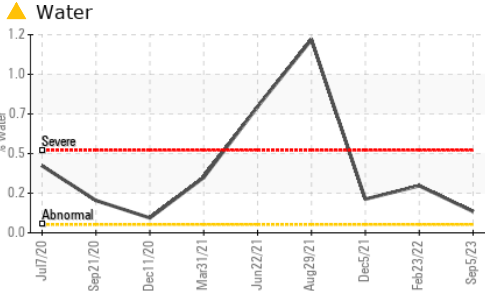
## FLUID CLEANLINESS

| method          | limit/base             | current           | history1 | history2 |
|-----------------|------------------------|-------------------|----------|----------|
| Particles >4µm  | ASTM D7647 >5000       | <b>▲ 52613</b>    | ---      | ---      |
| Particles >6µm  | ASTM D7647 >1300       | <b>▲ 43811</b>    | ---      | ---      |
| Particles >14µm | ASTM D7647 >160        | <b>▲ 19350</b>    | ---      | ---      |
| Particles >21µm | ASTM D7647 >40         | <b>▲ 10125</b>    | ---      | ---      |
| Particles >38µm | ASTM D7647 >10         | <b>▲ 1773</b>     | ---      | ---      |
| Particles >71µm | ASTM D7647 >3          | <b>▲ 114</b>      | ---      | ---      |
| Oil Cleanliness | ISO 4406 (c) >19/17/14 | <b>▲ 23/23/21</b> | ---      | ---      |

## FLUID DEGRADATION

| method           | limit/base | current    | history1    | history2 |     |
|------------------|------------|------------|-------------|----------|-----|
| Acid Number (AN) | mg KOH/g   | ASTM D8045 | <b>0.68</b> | ---      | --- |

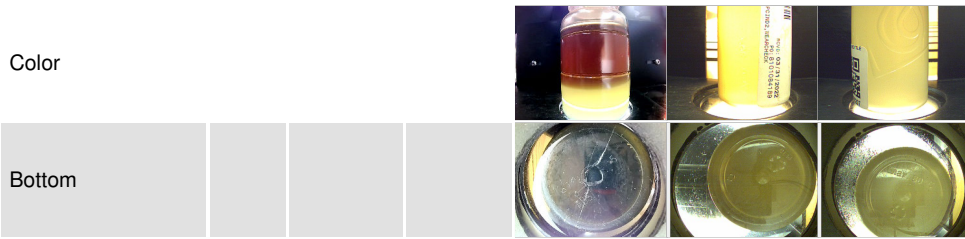
# OIL ANALYSIS REPORT



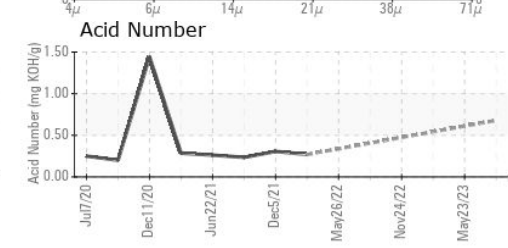
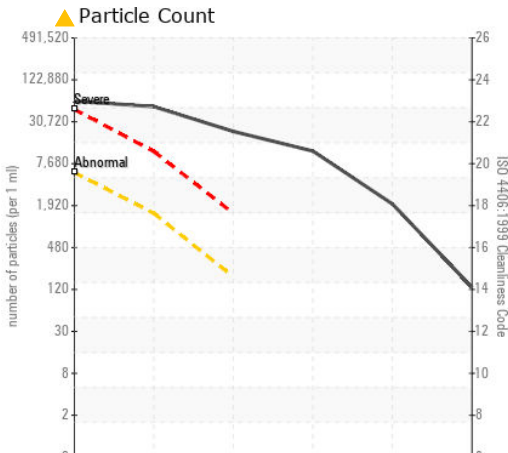
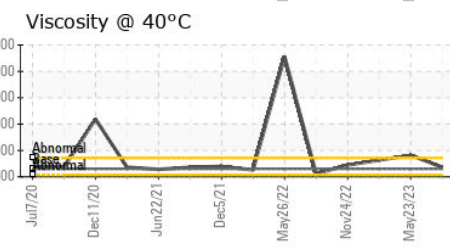
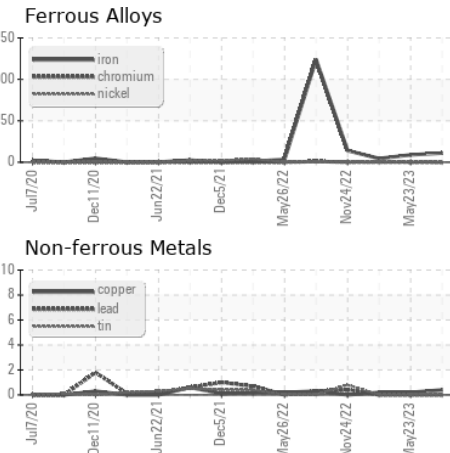
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Silt             | scalar | *Visual    | NONE    | NONE     | NONE     |
| Debris           | scalar | *Visual    | NONE    | NONE     | NONE     |
| Sand/Dirt        | scalar | *Visual    | NONE    | NONE     | NONE     |
| Appearance       | scalar | *Visual    | NORML   | LAYRD    | NORML    |
| Odor             | scalar | *Visual    | NORML   | NORML    | NORML    |
| Emulsified Water | scalar | *Visual    | >0.05   | 0.2%     | NEG      |
| Free Water       | scalar | *Visual    |         | NEG      | NEG      |

| FLUID PROPERTIES | method | limit/base    | current | history1 | history2 |
|------------------|--------|---------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445 460 | 473     | 563      | 527      |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
|---------------|--------|------------|---------|----------|----------|



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0102560  
**Lab Number** : 05945710  
**Unique Number** : 10636322  
**Test Package** : IND 2 ( Additional Tests: KF )

**KraftHeinz - Kirksville - Plant 8333 PCA**  
 2504 INDUSTRIAL DR  
 KIRKSVILLE, MO  
 US 63501  
 Contact: WALLACE WARD  
 wallace.ward@kraftheinzcompany.com  
 T: (660)627-1031  
 F: (660)627-5887

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)