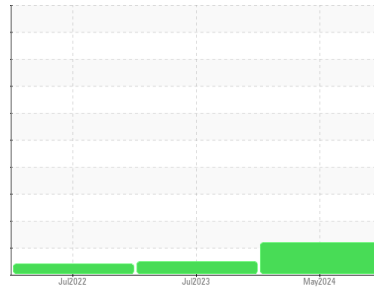




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**RIG 55-B CRANE (S/N 062965)**

Component  
**Port Gearbox**  
Fluid  
**{not provided} (--- GAL)**

## DIAGNOSIS

### Recommendation

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

### Wear

All component wear rates are normal.

### Contamination

There is a light amount of silt (particulates < 14 microns in size) 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>RP0037472</b>   | RP0031776   | RP0022138   |
| Sample Date   | Client Info |             | <b>16 May 2024</b> | 24 Jul 2023 | 14 Jul 2022 |
| Machine Age   | hrs         | Client Info | <b>1144</b>        | 993         | 771         |
| Oil Age       | hrs         | Client Info | <b>0</b>           | 0           | 0           |
| Oil Changed   | Client Info |             | <b>N/A</b>         | N/A         | N/A         |
| Sample Status |             |             | <b>ATTENTION</b>   | NORMAL      | ABNORMAL    |

## WEAR METALS

|          | method | limit/base       | current      | history1 | history2 |
|----------|--------|------------------|--------------|----------|----------|
| Iron     | ppm    | ASTM D5185m >200 | <b>5</b>     | 3        | 8        |
| Chromium | ppm    | ASTM D5185m >15  | <b>&lt;1</b> | <1       | 0        |
| Nickel   | ppm    | ASTM D5185m >15  | <b>0</b>     | <1       | 0        |
| Titanium | ppm    | ASTM D5185m      | <b>&lt;1</b> | 0        | 0        |
| Silver   | ppm    | ASTM D5185m      | <b>0</b>     | 1        | <1       |
| Aluminum | ppm    | ASTM D5185m >25  | <b>2</b>     | 0        | <1       |
| Lead     | ppm    | ASTM D5185m >100 | <b>&lt;1</b> | 0        | <1       |
| Copper   | ppm    | ASTM D5185m >200 | <b>2</b>     | 2        | 2        |
| Tin      | ppm    | ASTM D5185m >25  | <b>&lt;1</b> | <1       | <1       |
| Vanadium | ppm    | ASTM D5185m      | <b>0</b>     | 0        | 0        |
| Cadmium  | ppm    | ASTM D5185m      | <b>&lt;1</b> | <1       | 0        |

## ADDITIVES

|            | method | limit/base  | current      | history1 | history2 |
|------------|--------|-------------|--------------|----------|----------|
| Boron      | ppm    | ASTM D5185m | <b>0</b>     | 0        | 0        |
| Barium     | ppm    | ASTM D5185m | <b>&lt;1</b> | 0        | 0        |
| Molybdenum | ppm    | ASTM D5185m | <b>0</b>     | 0        | 0        |
| Manganese  | ppm    | ASTM D5185m | <b>0</b>     | <1       | 0        |
| Magnesium  | ppm    | ASTM D5185m | <b>&lt;1</b> | 6        | <1       |
| Calcium    | ppm    | ASTM D5185m | <b>3</b>     | 3        | 4        |
| Phosphorus | ppm    | ASTM D5185m | <b>223</b>   | 157      | 237      |
| Zinc       | ppm    | ASTM D5185m | <b>58</b>    | 18       | 48       |

## CONTAMINANTS

|           | method | limit/base       | current      | history1 | history2 |
|-----------|--------|------------------|--------------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >50  | <b>3</b>     | 2        | 3        |
| Sodium    | ppm    | ASTM D5185m      | <b>0</b>     | 0        | 0        |
| Potassium | ppm    | ASTM D5185m >20  | <b>&lt;1</b> | 5        | <1       |
| Water     | %      | ASTM D6304 >0.2  | <b>0.00</b>  | 0.002    | 0.004    |
| ppm Water | ppm    | ASTM D6304 >2000 | <b>0</b>     | 20.0     | 46.2     |

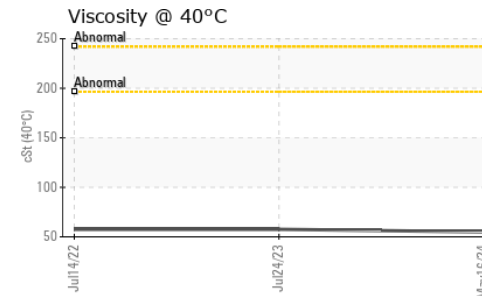
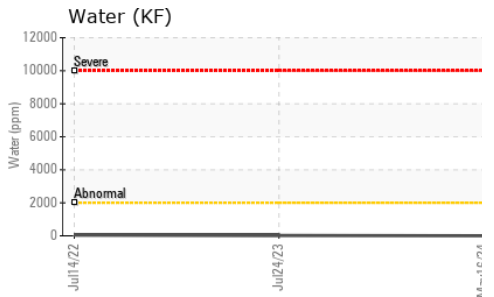
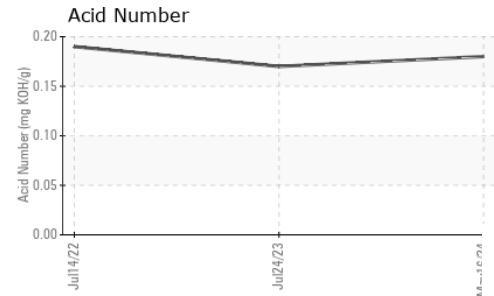
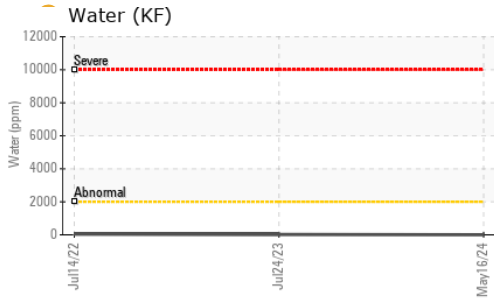
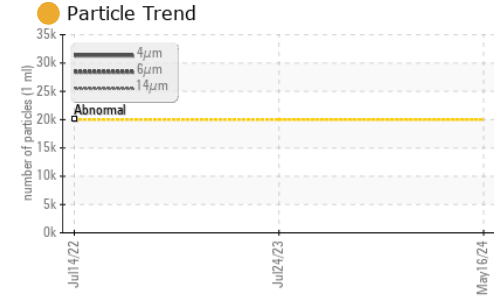
## FLUID CLEANLINESS

|                 | method       | limit/base | current         | history1 | history2 |
|-----------------|--------------|------------|-----------------|----------|----------|
| Particles >4µm  | ASTM D7647   | >20000     | <b>30663</b>    | ---      | ---      |
| Particles >6µm  | ASTM D7647   | >5000      | <b>6622</b>     | ---      | ---      |
| Particles >14µm | ASTM D7647   | >640       | <b>392</b>      | ---      | ---      |
| Particles >21µm | ASTM D7647   | >160       | <b>94</b>       | ---      | ---      |
| Particles >38µm | ASTM D7647   | >40        | <b>6</b>        | ---      | ---      |
| Particles >71µm | ASTM D7647   | >10        | <b>0</b>        | ---      | ---      |
| Oil Cleanliness | ISO 4406 (c) | >21/19/16  | <b>22/20/16</b> | ---      | ---      |

## FLUID DEGRADATION

|                  | method   | limit/base | current     | history1 | history2 |
|------------------|----------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | <b>0.18</b> | 0.17     | 0.19     |

# OIL ANALYSIS REPORT



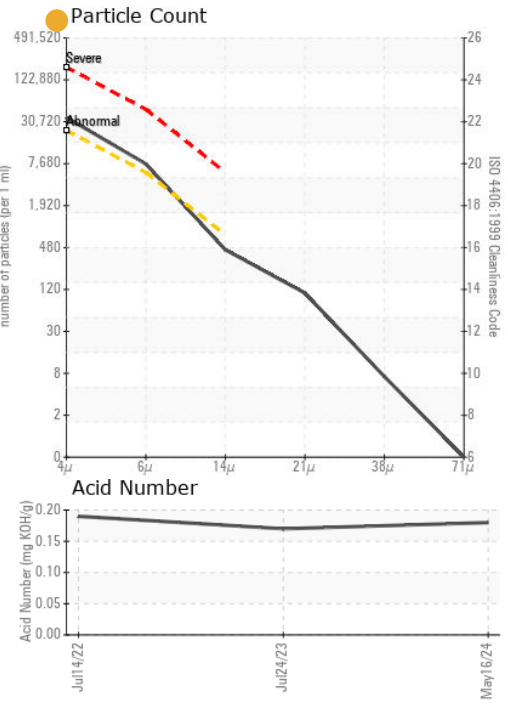
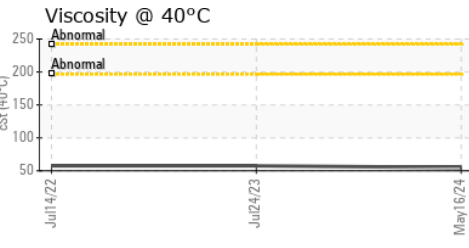
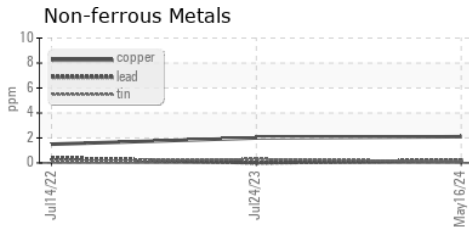
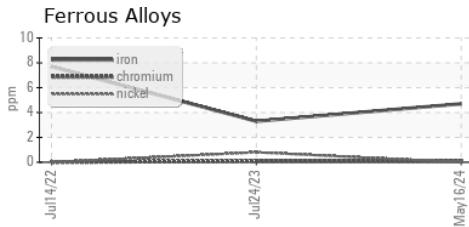
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
|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

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445  | 54.9    | 57.6     | 57.6     |

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



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RP0037472  
**Lab Number** : 06201490  
**Unique Number** : 11063613  
**Test Package** : IND 2 ( Additional Tests: PrtCount )  
**Received** : 06 Jun 2024  
**Tested** : 07 Jun 2024  
**Diagnosed** : 07 Jun 2024 - Wes Davis

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