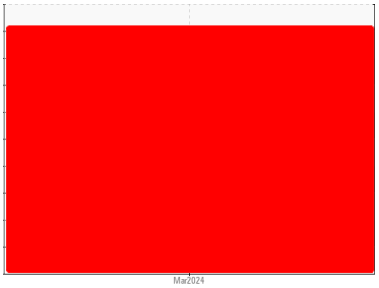
# PROBLEM SUMMARY

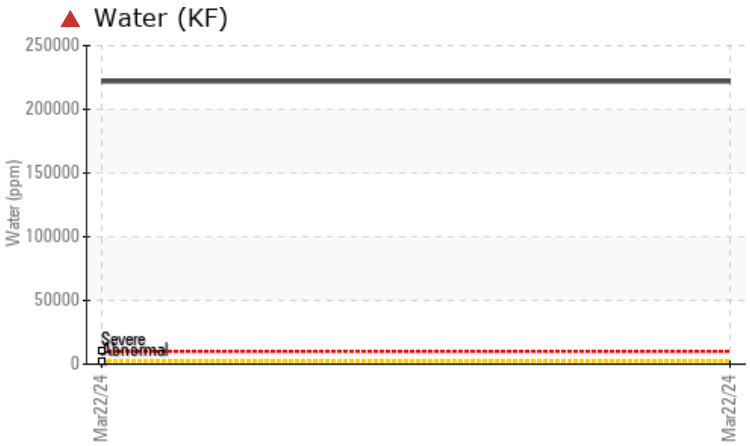
Sample Rating Trend

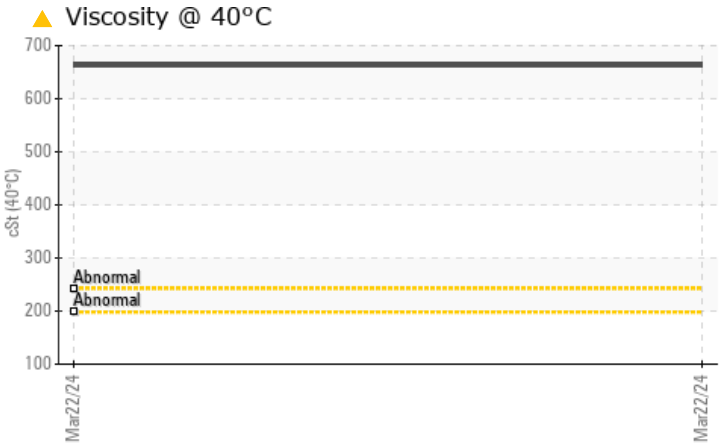


**WATER**

Area
**RIG 252**
Machine Id
**R252-MP-02**
Component
**Gearbox**
Fluid
**{not provided} (--- GAL)**

## COMPONENT CONDITION SUMMARY




## RECOMMENDATION

We advise that you check for the source of water entry. We recommend drain/flush system. We recommend an early resample to monitor this condition. There is too much water present in this sample to perform a particle count.

## PROBLEMATIC TEST RESULTS

| | | | | | | |
|---|---|---|---|---|---|---|
| Sample Status | | | | **SEVERE** | --- | --- |
| Water | % | ASTM D6304 | >0.2 | ▲ **22.2** | --- | --- |
| ppm Water | ppm | ASTM D6304 | >2000 | ▲ **222000** | --- | --- |
| Emulsified Water | scalar | *Visual | >0.2 | ▲ **0.2%** | --- | --- |
| Free Water | scalar | *Visual | | ▲ **>10%** | --- | --- |
| Visc @ 40°C | cSt | ASTM D445 | | ▲ **663** | --- | --- |


**Customer Id:** PATMIDTX
**Sample No.:** KL0011754
**Lab Number:** 06131140
**Test Package:** FLEET

*To manage this report scan the QR code*

*To discuss the diagnosis or test data:*
Doug Bogart +1 (800)237-1369 x4016
dougb@wearcheckusa.com

*To change component or sample information:*
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

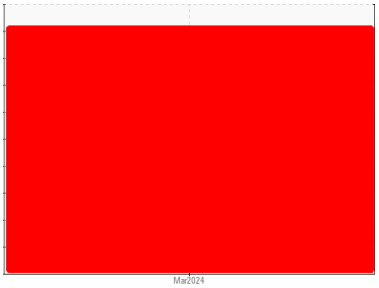
## RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|---|---|---|---|---|
| Change Fluid | --- | --- | ? | We recommend drain/flush system, and refill with 50/50 antifreeze water mixture. We advise that you replenish the supplemental coolant additives (SCAs) and add per manufacturer's recommendations. |
| Flush System | --- | --- | ? | We recommend drain/flush system, and refill with 50/50 antifreeze water mixture. We advise that you replenish the supplemental coolant additives (SCAs) and add per manufacturer's recommendations. |
| Resample | --- | --- | ? | We recommend an early resample to monitor this condition. |
| Check Water Access | --- | --- | ? | We advise that you check for the source of water entry. |

## HISTORICAL DIAGNOSIS

# OIL ANALYSIS REPORT

Sample Rating Trend



**WATER**

Area
**RIG 252**
Machine Id
**R252-MP-02**
Component
**Gearbox**
Fluid
**{not provided} (--- GAL)**

## DIAGNOSIS

**Recommendation**
We advise that you check for the source of water entry. We recommend drain/flush system. We recommend an early resample to monitor this condition. There is too much water present in this sample to perform a particle count.

**Wear**
All component wear rates are normal.

**Contamination**
Appearance is unacceptable. Excessive free water present. There is a high concentration of water present in the oil. There is a moderate amount of visible silt present in the sample.

**Fluid Condition**
The oil is no longer serviceable due to the presence of contaminants.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **KL0011754** | --- | --- |
| Sample Date | | Client Info | | **22 Mar 2024** | --- | --- |
| Machine Age | hrs | Client Info | | **0** | --- | --- |
| Oil Age | hrs | Client Info | | **0** | --- | --- |
| Oil Changed | | Client Info | | **N/A** | --- | --- |
| Sample Status | | | | **SEVERE** | --- | --- |

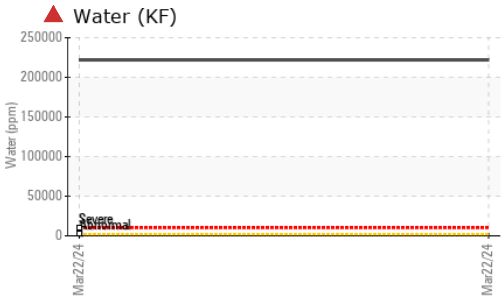
| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >200 | **91** | --- | --- |
| Chromium | ppm | ASTM D5185m | >10 | **<1** | --- | --- |
| Nickel | ppm | ASTM D5185m | >10 | **<1** | --- | --- |
| Titanium | ppm | ASTM D5185m | | **0** | --- | --- |
| Silver | ppm | ASTM D5185m | | **0** | --- | --- |
| Aluminum | ppm | ASTM D5185m | >25 | **2** | --- | --- |
| Lead | ppm | ASTM D5185m | >50 | **6** | --- | --- |
| Copper | ppm | ASTM D5185m | >200 | **21** | --- | --- |
| Tin | ppm | ASTM D5185m | >10 | **5** | --- | --- |
| Vanadium | ppm | ASTM D5185m | | **0** | --- | --- |
| Cadmium | ppm | ASTM D5185m | | **0** | --- | --- |

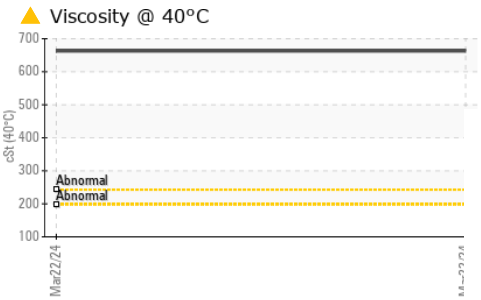
| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | | **26** | --- | --- |
| Barium | ppm | ASTM D5185m | | **0** | --- | --- |
| Molybdenum | ppm | ASTM D5185m | | **2** | --- | --- |
| Manganese | ppm | ASTM D5185m | | **<1** | --- | --- |
| Magnesium | ppm | ASTM D5185m | | **27** | --- | --- |
| Calcium | ppm | ASTM D5185m | | **100** | --- | --- |
| Phosphorus | ppm | ASTM D5185m | | **144** | --- | --- |
| Zinc | ppm | ASTM D5185m | | **42** | --- | --- |
| Sulfur | ppm | ASTM D5185m | | **9641** | --- | --- |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >50 | **17** | --- | --- |
| Sodium | ppm | ASTM D5185m | | **45** | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | **5** | --- | --- |
| Water | % | ASTM D6304 | >0.2 | ▲ **22.2** | --- | --- |
| ppm Water | ppm | ASTM D6304 | >2000 | ▲ **222000** | --- | --- |

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | --- | --- |
| Precipitate | scalar | *Visual | NONE | **NONE** | --- | --- |
| Silt | scalar | *Visual | NONE | **MODER** | --- | --- |
| Debris | scalar | *Visual | NONE | **NONE** | --- | --- |
| Sand/Dirt | scalar | *Visual | NONE | **NONE** | --- | --- |
| Appearance | scalar | *Visual | NORML | ● **MILKY** | --- | --- |
| Odor | scalar | *Visual | NORML | **NORML** | --- | --- |
| Emulsified Water | scalar | *Visual | >0.2 | ▲ **0.2%** | --- | --- |
| Free Water | scalar | *Visual | | ▲ **>10%** | --- | --- |

# OIL ANALYSIS REPORT

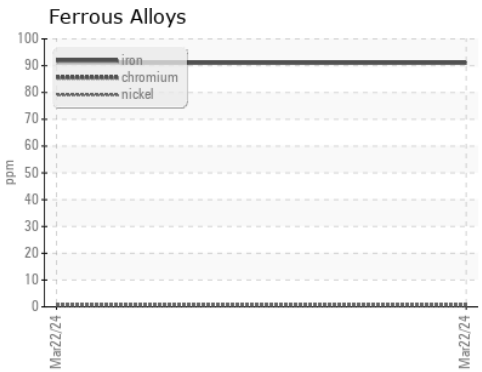


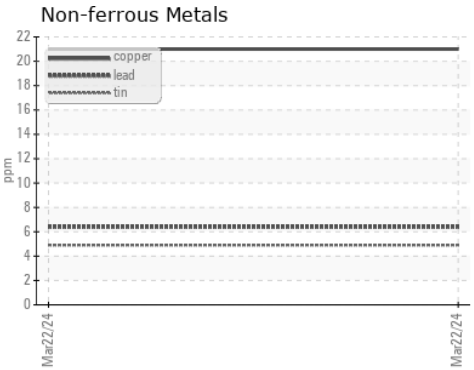



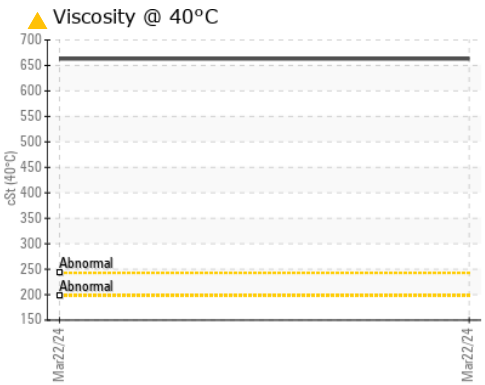

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | | ▲ **663** | --- | --- |

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

## GRAPHS




**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : KL0011754
**Lab Number** : 06131140
**Unique Number** : 10950605
**Test Package** : FLEET ( Additional Tests: KF )

**Received** : 27 Mar 2024
**Tested** : 28 Mar 2024
**Diagnosed** : 28 Mar 2024 - Doug Bogart

Certificate L2367

*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)*

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