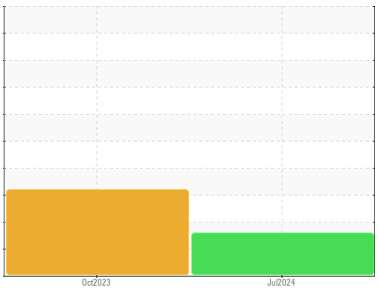
# OIL ANALYSIS REPORT

Sample Rating Trend




ISO

Machine Id
## EX OVEN 1 DRUM (NORTH PLANT)
Component
**Gearbox**
Fluid
**JAX SYNGEAR INDUSTRIAL GEAR ISO 320 (--- 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.

**Fluid Condition**
The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **USP0012364** | USP0002876 | --- |
| Sample Date | | Client Info | | **15 Jul 2024** | 29 Oct 2023 | --- |
| Machine Age | hrs | Client Info | | **0** | 0 | --- |
| Oil Age | hrs | Client Info | | **0** | 0 | --- |
| Oil Changed | | Client Info | | **N/A** | N/A | --- |
| Sample Status | | | | **ABNORMAL** | ABNORMAL | --- |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >200 | **17** | 1 | --- |
| Chromium | ppm | ASTM D5185m | >15 | **0** | <1 | --- |
| Nickel | ppm | ASTM D5185m | >15 | **<1** | <1 | --- |
| Titanium | ppm | ASTM D5185m | | **0** | <1 | --- |
| Silver | ppm | ASTM D5185m | | **0** | 0 | --- |
| Aluminum | ppm | ASTM D5185m | >25 | **<1** | 3 | --- |
| Lead | ppm | ASTM D5185m | >100 | **0** | 0 | --- |
| Copper | ppm | ASTM D5185m | >200 | **0** | 0 | --- |
| Tin | ppm | ASTM D5185m | >25 | **0** | <1 | --- |
| Vanadium | ppm | ASTM D5185m | | **0** | <1 | --- |
| Cadmium | ppm | ASTM D5185m | | **0** | <1 | --- |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | | **0** | 0 | --- |
| Barium | ppm | ASTM D5185m | | **0** | 0 | --- |
| Molybdenum | ppm | ASTM D5185m | | **0** | 0 | --- |
| Manganese | ppm | ASTM D5185m | | **0** | 0 | --- |
| Magnesium | ppm | ASTM D5185m | | **1** | 0 | --- |
| Calcium | ppm | ASTM D5185m | | **71** | <1 | --- |
| Phosphorus | ppm | ASTM D5185m | | **359** | 504 | --- |
| Zinc | ppm | ASTM D5185m | | **2** | 0 | --- |
| Sulfur | ppm | ASTM D5185m | | **288** | 612 | --- |

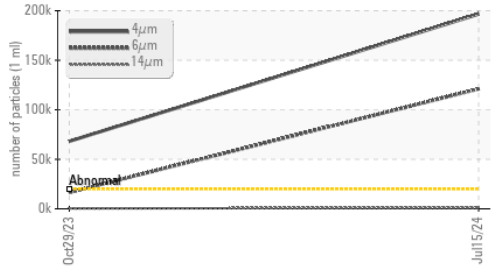
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >50 | **7** | 3 | --- |
| Sodium | ppm | ASTM D5185m | | **2** | 5 | --- |
| Potassium | ppm | ASTM D5185m | >20 | **<1** | 2 | --- |
| Water | % | ASTM D6304 | >0.2 | **0.007** | ▲ 0.275 | --- |
| ppm Water | ppm | ASTM D6304 | >2000 | **79** | ▲ 2752.9 | --- |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >20000 | ▲ **196612** | ▲ 68164 | --- |
| Particles >6µm | | ASTM D7647 | >5000 | ▲ **121018** | ▲ 16486 | --- |
| Particles >14µm | | ASTM D7647 | >640 | ▲ **1006** | 317 | --- |
| Particles >21µm | | ASTM D7647 | >160 | **82** | 67 | --- |
| Particles >38µm | | ASTM D7647 | >40 | **9** | 3 | --- |
| Particles >71µm | | ASTM D7647 | >10 | **4** | 2 | --- |
| Oil Cleanliness | | ISO 4406 (c) | >21/19/16 | ▲ **25/24/17** | ▲ 23/21/15 | --- |

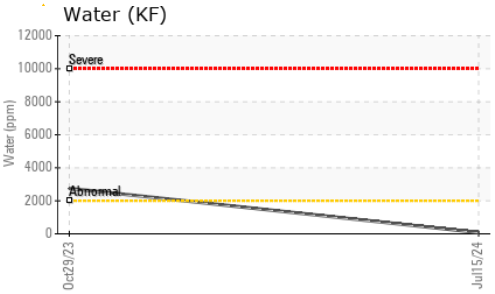
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | **0.39** | 0.06 | --- |

# OIL ANALYSIS REPORT

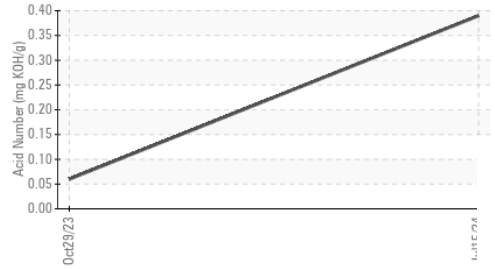
Particle Trend



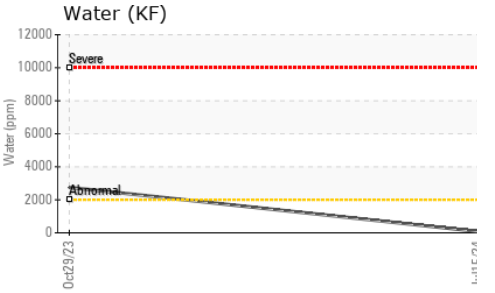

Water (KF)



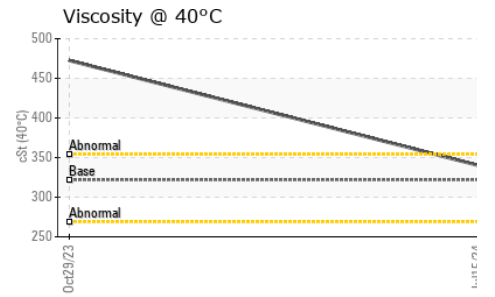

Acid Number




Water (KF)

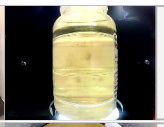
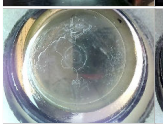
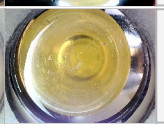



Viscosity @ 40°C



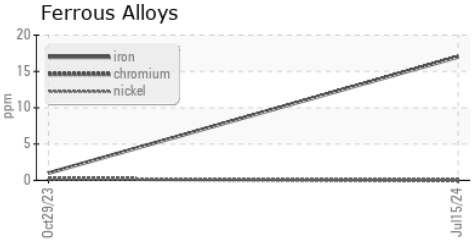

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Silt | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Debris | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Sand/Dirt | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Appearance | scalar | *Visual | NORML | **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 | 321.9 | **340** | 472.5 | --- |

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

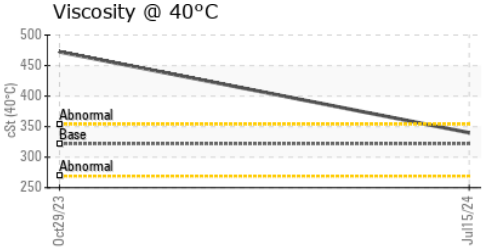
## GRAPHS

Ferrous Alloys

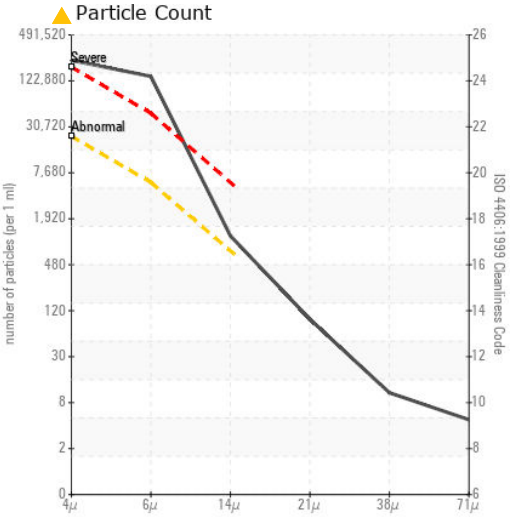



Non-ferrous Metals

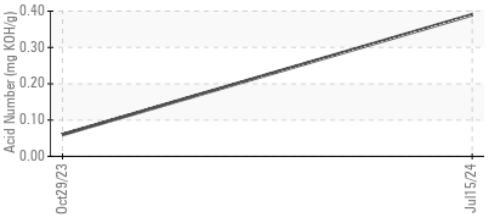

Viscosity @ 40°C




Particle Count




Acid Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : USP0012364
**Lab Number** : 06237829
**Unique Number** : 11126663
**Test Package** : IND 2

**Received** : 16 Jul 2024
**Tested** : 18 Jul 2024
**Diagnosed** : 18 Jul 2024 - Doug Bogart

**TYSON HILLSHIRE - SAINT JOSEPH**
5807 MITCHELL AVE
SAINT JOSEPH, MO
US 64507
Contact:
T:
F:

*To discuss this sample report, contact Customer Service at 1-800-237-1369.*
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*Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)*