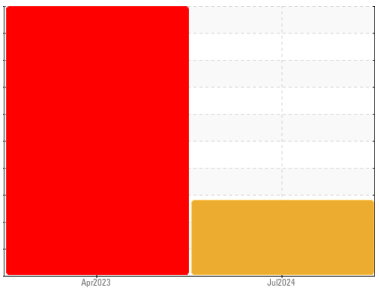
# OIL ANALYSIS REPORT

Sample Rating Trend




**WEAR**

Machine Id
## TUNNEL 3 SPIRAL 2 OUTFEED
Component
**Gearbox**
Fluid
**AW HYDRAULIC OIL ISO 68 (--- GAL)**

## DIAGNOSIS

**Recommendation**
Resample at the next service interval to monitor.

**Wear**
Bearing and/or gear wear is indicated.

**Contamination**
There is a high 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 acceptable for the time in service.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **USP0012355** | USPM20299 | --- |
| Sample Date | | Client Info | | **03 Jul 2024** | 27 Apr 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** | SEVERE | --- |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >200 | **13** | 116 | --- |
| Chromium | ppm | ASTM D5185m | >15 | **0** | <1 | --- |
| Nickel | ppm | ASTM D5185m | >15 | **3** | 27 | --- |
| Titanium | ppm | ASTM D5185m | | **<1** | 1 | --- |
| Silver | ppm | ASTM D5185m | | **0** | 0 | --- |
| Aluminum | ppm | ASTM D5185m | >25 | **8** | ▲ 66 | --- |
| Lead | ppm | ASTM D5185m | >100 | **2** | 6 | --- |
| Copper | ppm | ASTM D5185m | >200 | ▲ **347** | ▲ 1996 | --- |
| Tin | ppm | ASTM D5185m | >25 | ▲ **43** | ▲ 287 | --- |
| Vanadium | ppm | ASTM D5185m | | **0** | 0 | --- |
| Cadmium | ppm | ASTM D5185m | | **0** | 0 | --- |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | 5 | **<1** | 1 | --- |
| Barium | ppm | ASTM D5185m | 5 | **0** | 0 | --- |
| Molybdenum | ppm | ASTM D5185m | 5 | **0** | 0 | --- |
| Manganese | ppm | ASTM D5185m | | **<1** | 1 | --- |
| Magnesium | ppm | ASTM D5185m | 25 | **<1** | 3 | --- |
| Calcium | ppm | ASTM D5185m | 200 | **11** | 52 | --- |
| Phosphorus | ppm | ASTM D5185m | 300 | **612** | 931 | --- |
| Zinc | ppm | ASTM D5185m | 370 | **38** | 305 | --- |
| Sulfur | ppm | ASTM D5185m | 2500 | **1778** | 2687 | --- |

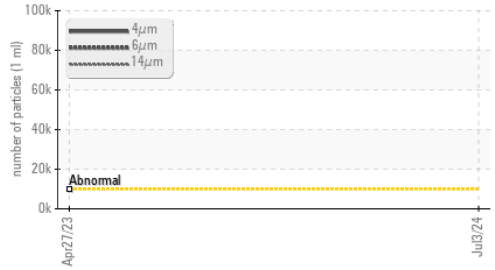
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >50 | **6** | 46 | --- |
| Sodium | ppm | ASTM D5185m | | **4** | 43 | --- |
| Potassium | ppm | ASTM D5185m | >20 | **<1** | 2 | --- |
| Water | % | ASTM D6304 | >0.2 | **0.003** | 0.024 | --- |
| ppm Water | ppm | ASTM D6304 | >2000 | **33** | 242.9 | --- |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >10000 | ▲ **91879** | --- | --- |
| Particles >6µm | | ASTM D7647 | >2500 | ▲ **19456** | --- | --- |
| Particles >14µm | | ASTM D7647 | >640 | **156** | --- | --- |
| Particles >21µm | | ASTM D7647 | >160 | **22** | --- | --- |
| Particles >38µm | | ASTM D7647 | >40 | **1** | --- | --- |
| Particles >71µm | | ASTM D7647 | >10 | **0** | --- | --- |
| Oil Cleanliness | | ISO 4406 (c) | >20/18/16 | ▲ **24/21/14** | --- | --- |

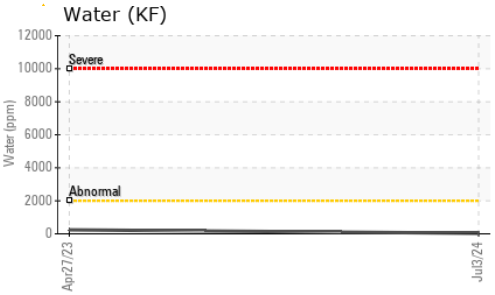
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.57 | **0.09** | 0.95 | --- |

# OIL ANALYSIS REPORT

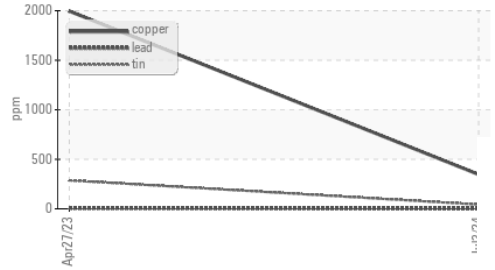
Particle Trend



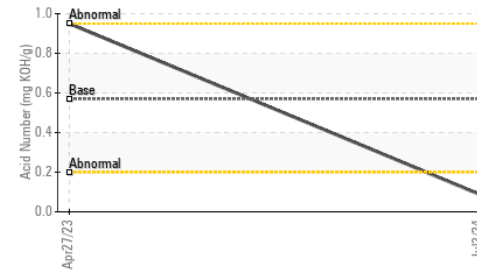

Water (KF)



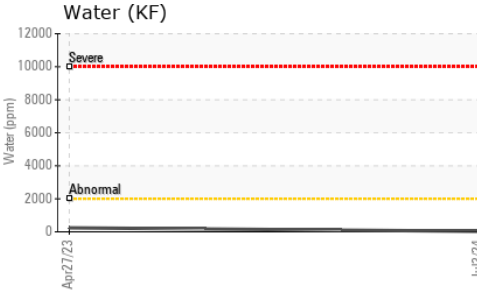

Non-ferrous Metals




Acid Number

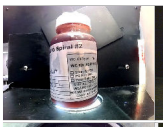
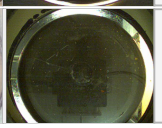



Water (KF)



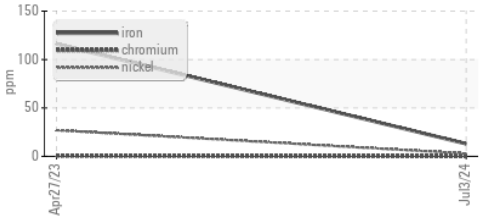

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | ▲ HEAVY | --- |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Silt | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Debris | scalar | *Visual | NONE | **NONE** | LIGHT | --- |
| 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 | 68 | **63.0** | 69.84 | --- |

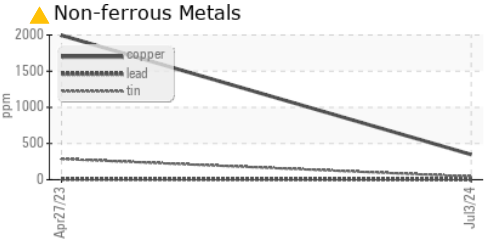
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  |  | no image |
| Bottom | | |  |  | no image |

GRAPHS

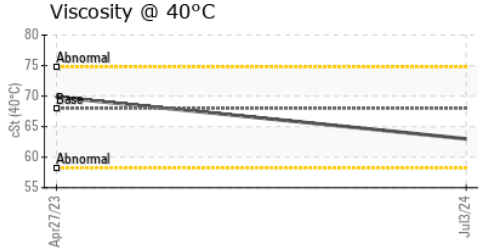
Ferrous Alloys



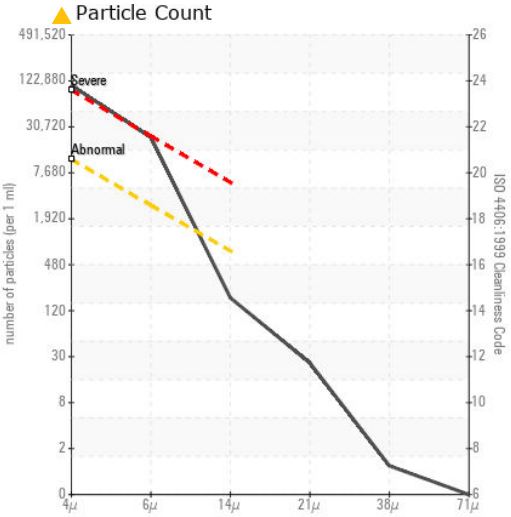

Non-ferrous Metals



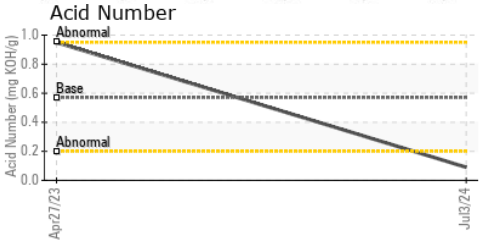

Viscosity @ 40°C




Particle Count




Acid Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : USP0012355
**Lab Number** : 06237840
**Unique Number** : 11126674
**Test Package** : IND 2

**Received** : 16 Jul 2024
**Tested** : 17 Jul 2024
**Diagnosed** : 18 Jul 2024 - Doug Bogart

**KraftHeinz - Avon - Plant 8357**
140 SPRING ST
AVON, NY
US 14414
Contact:
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)*