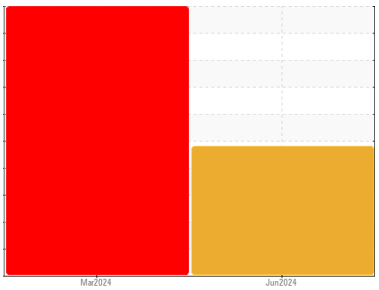
# PROBLEM SUMMARY

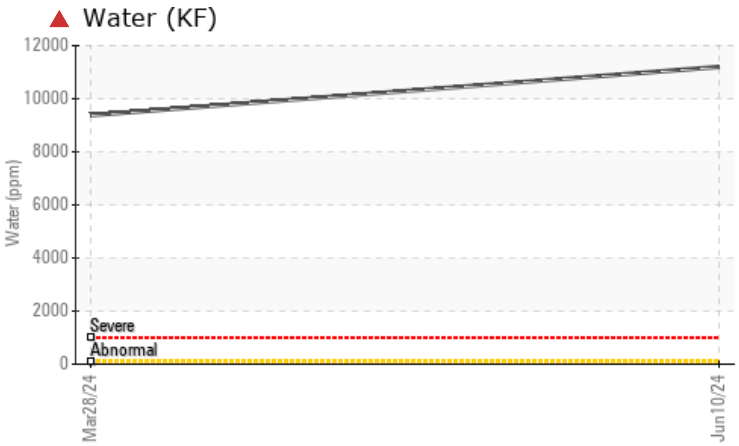
Sample Rating Trend




**WATER**

Machine Id
## N/a DNL FEEDSTOCK 001
Component
**Machining Fluid**
Fluid
**Benz multicut and Fuchs wisura (--- GAL)**

## COMPONENT CONDITION SUMMARY




## RECOMMENDATION

We advise that you use off-line filtration with water adsorbent filters to attempt to remove the water from this machining fluid. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample. ( Customer Sample Comment: Used oil - Benz multicut and Fuchs wisura )

## PROBLEMATIC TEST RESULTS

| | | | | | | |
|---|---|---|---|---|---|---|
| Sample Status | | | | **SEVERE** | SEVERE | --- |
| Water | % | ASTM D6304 | | ▲ **1.12** | ▲ 0.938 | --- |
| ppm Water | ppm | ASTM D6304 | | ▲ **11200** | ▲ 9380 | --- |
| Silt | scalar | *Visual | NONE | ▲ **MODER** | ▲ HEAVY | --- |
| Emulsified Water | scalar | *Visual | | ▲ **0.2%** | ▲ 0.2% | --- |

**Customer Id:** UCDANLAF
**Sample No.:** FCH0000097
**Lab Number:** 06207745
**Test Package:** PLANT

*To manage this report scan the QR code*

*To discuss the diagnosis or test data:*
Angela Borella +1 800-237-1369
angela.borella@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 |
|---|---|---|---|---|
| Resample | --- | --- | ? | We recommend an early resample to monitor this condition. Please submit a sample of the new (unused) oil to establish a baseline. |
| Alert | --- | --- | ? | We were unable to perform a particle count due to a high concentration of particles present in this sample. |
| Filter Fluid | --- | --- | ? | We advise that you use off-line filtration with water adsorbent filters to attempt to remove the water from this machining fluid. |

## HISTORICAL DIAGNOSIS

**ISO**

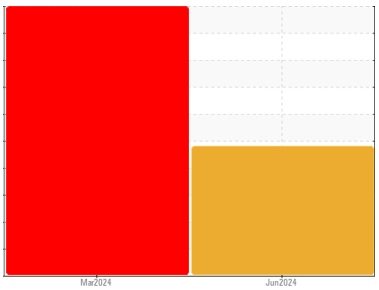
**28 Mar 2024 Diag: Jonathan Hester**

We advise that you check for the source of water entry. We recommend an early resample to monitor this condition. Please note that this is a corrected copy for laboratory data updates to add particle count.All component wear rates are normal. There is a high amount of particulates present in the machining fluid. There is a high concentration of water present in the machining fluid. There is a high amount of visible silt present in the sample. The AN level is acceptable for this fluid.

**view report**

# OIL ANALYSIS REPORT

Sample Rating Trend




**WATER**

Machine Id
## N/a DNL FEEDSTOCK 001
Component
**Machining Fluid**
Fluid
**Benz multicut and Fuchs wisura (--- GAL)**

## DIAGNOSIS

**▲ Recommendation**
We advise that you use off-line filtration with water adsorbent filters to attempt to remove the water from this machining fluid. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample. ( Customer Sample Comment: Used oil - Benz multicut and Fuchs wisura )

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

**▲ Contamination**
Appearance is hazy. There is a high concentration of water present in the machining fluid. There is a moderate amount of visible silt present in the sample.

**Fluid Condition**
The AN level is acceptable for this fluid.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **FCH0000097** | FCH0000041 | --- |
| Sample Date | | Client Info | | **10 Jun 2024** | 28 Mar 2024 | --- |
| Machine Age | hrs | Client Info | | **0** | 0 | --- |
| Oil Age | hrs | Client Info | | **0** | 0 | --- |
| Oil Changed | | Client Info | | **N/A** | N/A | --- |
| Sample Status | | | | **SEVERE** | SEVERE | --- |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | | **50** | 122 | --- |
| Chromium | ppm | ASTM D5185m | | **<1** | <1 | --- |
| Nickel | ppm | ASTM D5185m | | **<1** | <1 | --- |
| Titanium | ppm | ASTM D5185m | | **<1** | <1 | --- |
| Silver | ppm | ASTM D5185m | | **0** | 0 | --- |
| Aluminum | ppm | ASTM D5185m | | **2** | 0 | --- |
| Lead | ppm | ASTM D5185m | | **<1** | 0 | --- |
| Copper | ppm | ASTM D5185m | | **1** | 0 | --- |
| Tin | ppm | ASTM D5185m | | **<1** | <1 | --- |
| Vanadium | ppm | ASTM D5185m | | **0** | 0 | --- |
| Cadmium | ppm | ASTM D5185m | | **0** | 0 | --- |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | | **3** | 0 | --- |
| Barium | ppm | ASTM D5185m | | **0** | 0 | --- |
| Molybdenum | ppm | ASTM D5185m | | **<1** | 0 | --- |
| Manganese | ppm | ASTM D5185m | | **4** | 18 | --- |
| Magnesium | ppm | ASTM D5185m | | **6** | <1 | --- |
| Calcium | ppm | ASTM D5185m | | **1656** | 180 | --- |
| Phosphorus | ppm | ASTM D5185m | | **72** | 19 | --- |
| Zinc | ppm | ASTM D5185m | | **32** | 0 | --- |
| Sulfur | ppm | ASTM D5185m | | **8029** | 8582 | --- |

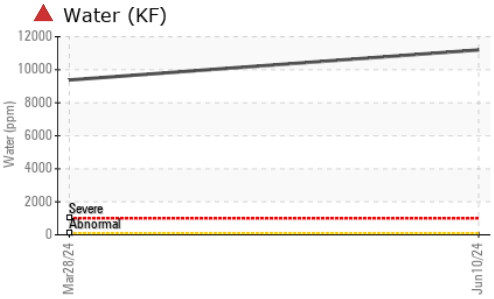
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | | **3** | 4 | --- |
| Sodium | ppm | ASTM D5185m | | **7** | 2 | --- |
| Potassium | ppm | ASTM D5185m | >20 | **5** | 2 | --- |
| Water | % | ASTM D6304 | | **▲ 1.12** | ▲ 0.938 | --- |
| ppm Water | ppm | ASTM D6304 | | **▲ 11200** | ▲ 9380 | --- |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >5000 | **---** | ▲ 60063 | --- |
| Particles >6µm | | ASTM D7647 | >1300 | **---** | ▲ 32719 | --- |
| Particles >14µm | | ASTM D7647 | >160 | **---** | ▲ 5568 | --- |
| Particles >21µm | | ASTM D7647 | >40 | **---** | ▲ 1876 | --- |
| Particles >38µm | | ASTM D7647 | >10 | **---** | ▲ 290 | --- |
| Particles >71µm | | ASTM D7647 | >3 | **---** | ▲ 30 | --- |
| Oil Cleanliness | | ISO 4406 (c) | >19/17/14 | **---** | ▲ 23/22/20 | --- |

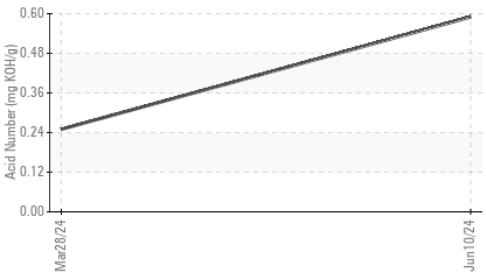
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | **0.59** | 0.25 | --- |

# OIL ANALYSIS REPORT

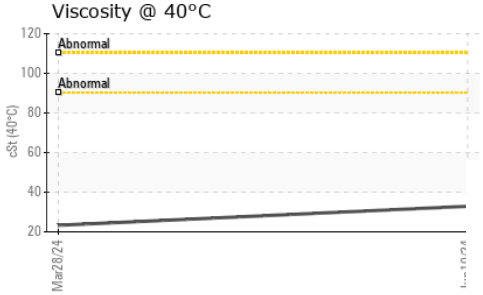
Water (KF)




Acid Number




Viscosity @ 40°C



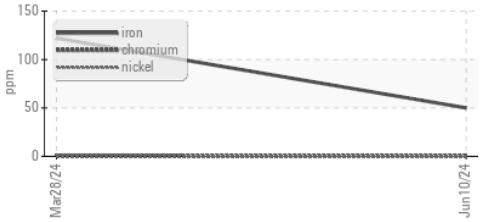

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Silt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

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | | **32.9** | 23.3 | --- |

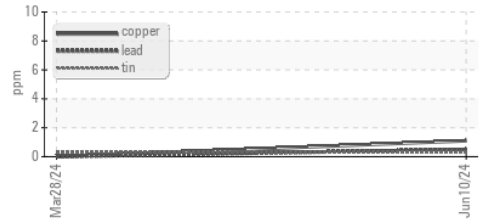
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  |  | *no image* |
| Bottom | | |  |  | *no image* |

## GRAPHS

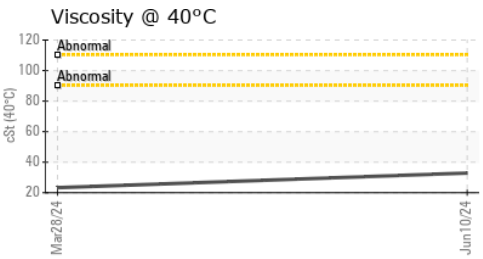
Ferrous Alloys



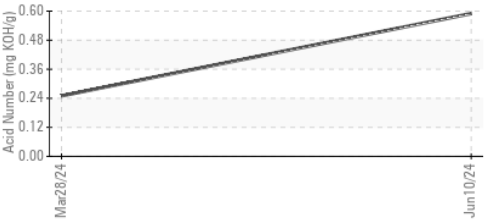

Non-ferrous Metals




Viscosity @ 40°C




Acid Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : FCH0000097
**Lab Number** : 06207745
**Unique Number** : 11075206
**Test Package** : PLANT

**Received** : 12 Jun 2024
**Tested** : 19 Jun 2024
**Diagnosed** : 19 Jun 2024 - Angela Borella

*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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Report Id: UCDANLAF [WUSCAR] 06207745 (Generated: 06/20/2024 09:05:04) Rev: 3

Submitted By: GODWIN GEORGE