

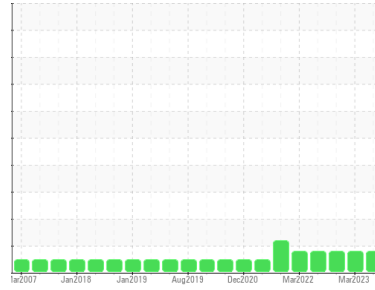
PROBLEM SUMMARY

Sample Rating Trend

ISO

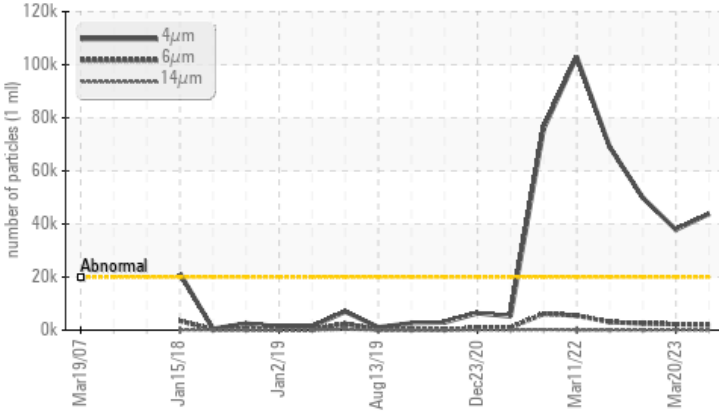


Area
No. 1 Paper Machine
 Machine Id
1 PM GLOSS CAL PRESS ROLL DRIVE Str. #0063 611-50-06 RED 0034 (S/N MO27565-34)
 Component
Gear Unit
 Fluid
ROYAL PURPLE SYNERGY 90/220 (7 GAL)



COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

| Sample Status | | ABNORMAL | ATTENTION | ABNORMAL |
|-----------------|------------------------|-------------------|------------|------------|
| Particles >4µm | ASTM D7647 >20000 | ▲ 43801 | ▲ 37839 | ▲ 49855 |
| Oil Cleanliness | ISO 4406 (c) >21/19/16 | ▲ 23/18/11 | ▲ 22/18/14 | ▲ 23/19/11 |

Customer Id: INTTEX
 Sample No.: RP0038229
 Lab Number: 05968339
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

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 Filter | --- | --- | ? | We recommend you service the filters on this component. |
| Resample | --- | --- | ? | We recommend an early resample to monitor this condition. |

HISTORICAL DIAGNOSIS

20 Mar 2023 Diag: Wes Davis

ISO



We recommend you service the filters on this component. Resample at the next service interval to monitor. All component wear rates are normal. There is a light amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



27 Dec 2022 Diag: Doug Bogart

ISO



No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of silt (particulates < 6 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



14 Oct 2022 Diag: Wes Davis

ISO



We recommend you service the filters on this component. We recommend an early resample to monitor this condition. All component wear rates are normal. Oil Cleanliness are abnormally high. Particles >4µm are abnormally high. The water content is negligible. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report





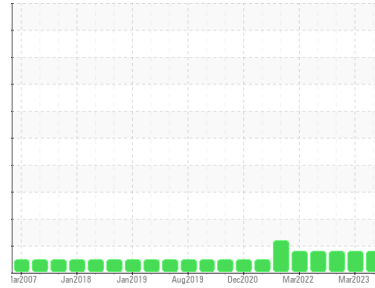
OIL ANALYSIS REPORT

Sample Rating Trend

ISO



Area
No. 1 Paper Machine
 Machine Id
1 PM GLOSS CAL PRESS ROLL DRIVE Str. #0063 611-50-06 RED 0034 (S/N MO27565-34)
 Component
Gear Unit
 Fluid
ROYAL PURPLE SYNERGY 90/220 (7 GAL)



DIAGNOSIS

Recommendation

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code.

Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION

| method | limit/base | current | history1 | history2 |
|---------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | RP0038229 | RP0031738 | RP0031042 |
| Sample Date | Client Info | 29 Sep 2023 | 20 Mar 2023 | 27 Dec 2022 |
| Machine Age | hrs | Client Info | 0 | 0 |
| Oil Age | hrs | Client Info | 0 | 0 |
| Oil Changed | Client Info | N/A | N/A | N/A |
| Sample Status | | ABNORMAL | ATTENTION | ABNORMAL |

WEAR METALS

| method | limit/base | current | history1 | history2 | |
|----------|------------|------------------|--------------|----------|----|
| Iron | ppm | ASTM D5185m >150 | 15 | 10 | 14 |
| Chromium | ppm | ASTM D5185m >10 | <1 | 0 | 0 |
| Nickel | ppm | ASTM D5185m >10 | <1 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | 0 | <1 | 0 |
| Silver | ppm | ASTM D5185m | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m >25 | <1 | 1 | 1 |
| Lead | ppm | ASTM D5185m >100 | <1 | 0 | 0 |
| Copper | ppm | ASTM D5185m >50 | <1 | 0 | 0 |
| Tin | ppm | ASTM D5185m >10 | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | 0 | <1 | 0 |
| Cadmium | ppm | ASTM D5185m | 0 | 0 | 0 |

ADDITIVES

| method | limit/base | current | history1 | history2 | |
|------------|------------|-----------------|------------|----------|-----|
| Boron | ppm | ASTM D5185m | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | 0 | <1 | 0 |
| Magnesium | ppm | ASTM D5185m | 0 | 4 | 0 |
| Calcium | ppm | ASTM D5185m | 10 | 9 | 14 |
| Phosphorus | ppm | ASTM D5185m 370 | 122 | 113 | 134 |
| Zinc | ppm | ASTM D5185m | 23 | 22 | 30 |

CONTAMINANTS

| method | limit/base | current | history1 | history2 | |
|-----------|------------|------------------|--------------|----------|-------|
| Silicon | ppm | ASTM D5185m >50 | 4 | 4 | 4 |
| Sodium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Potassium | ppm | ASTM D5185m >20 | <1 | 0 | 0 |
| Water | % | ASTM D6304 >0.1 | 0.002 | 0.007 | 0.010 |
| ppm Water | ppm | ASTM D6304 >1000 | 15.1 | 75.5 | 103.9 |

FLUID CLEANLINESS

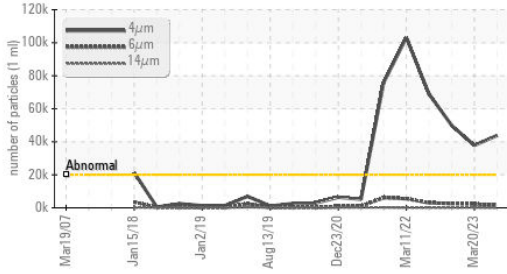
| method | limit/base | current | history1 | history2 |
|-----------------|------------------------|-------------------|------------|------------|
| Particles >4µm | ASTM D7647 >20000 | ▲ 43801 | ▲ 37839 | ▲ 49855 |
| Particles >6µm | ASTM D7647 >5000 | 1889 | 2212 | 2561 |
| Particles >14µm | ASTM D7647 >640 | 20 | 120 | 17 |
| Particles >21µm | ASTM D7647 >160 | 5 | 37 | 5 |
| Particles >38µm | ASTM D7647 >40 | 0 | 1 | 1 |
| Particles >71µm | ASTM D7647 >10 | 0 | 0 | 0 |
| Oil Cleanliness | ISO 4406 (c) >21/19/16 | ▲ 23/18/11 | ▲ 22/18/14 | ▲ 23/19/11 |

FLUID DEGRADATION

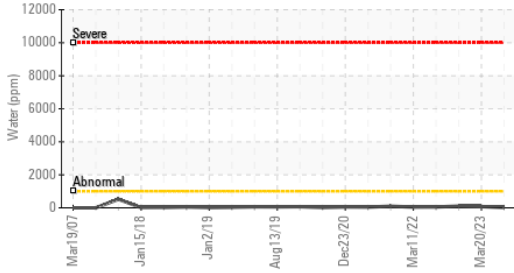
| method | limit/base | current | history1 | history2 | |
|------------------|------------|-----------------|-------------|----------|-------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 1.33 | 0.32 | 0.35 | 0.341 |

OIL ANALYSIS REPORT

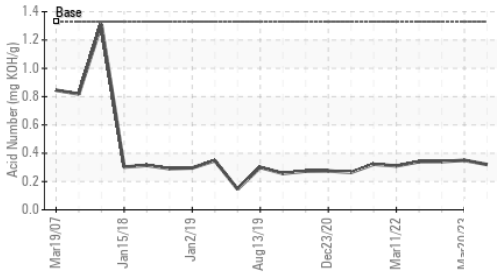
▲ Particle Trend



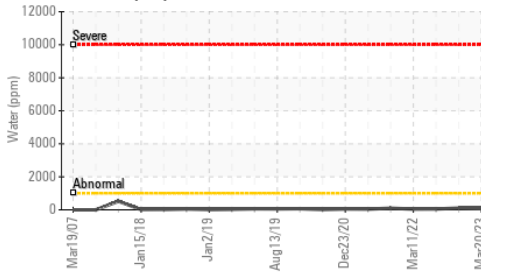
Water (KF)



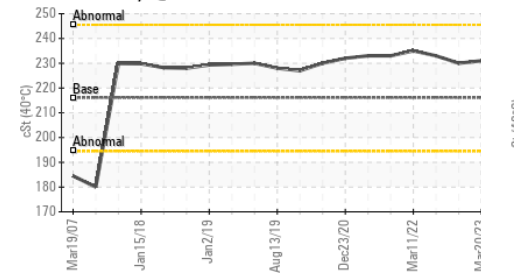
Acid Number



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 | >0.1 | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 216.1 | 234 | 231 |

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

Color

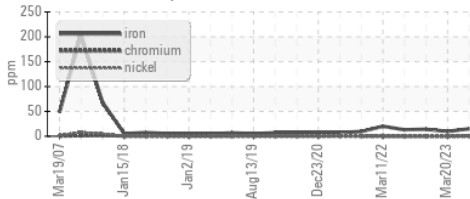


Bottom

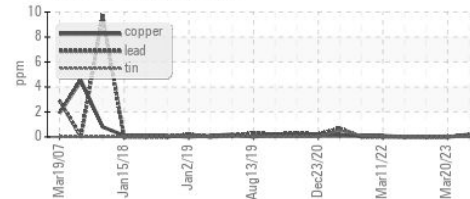


GRAPHS

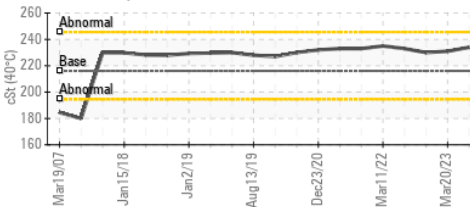
Ferrous Alloys



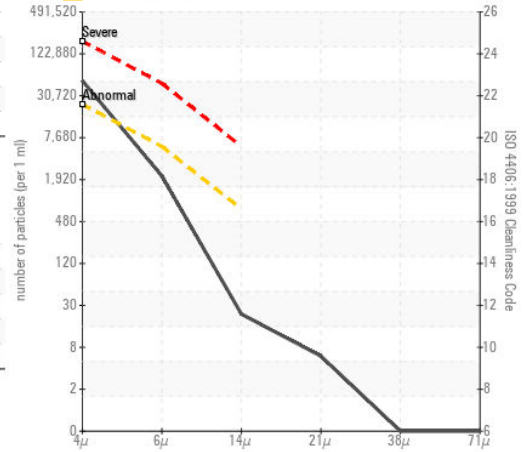
Non-ferrous Metals



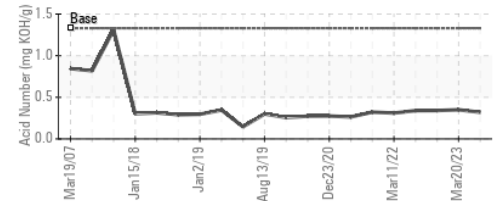
Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0038229 **Received** : 03 Oct 2023
Lab Number : 05968339 **Diagnosed** : 04 Oct 2023
Unique Number : 10674890 **Diagnostician** : Wes Davis
Test Package : IND 2 (Additional Tests: PrtCount)

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)

GRAPHIC PACKAGING INTERNATIONAL

9978 FM 3129
 QUEEN CITY, TX
 US 75572
 Contact: DAVID COTHREN
 david.cothren@graphicpkg.com
 T: (903)796-1690
 F: (903)796-1969