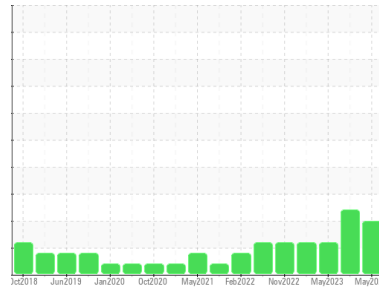




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area
North Plant-Fermentation

Machine Id
AG1760E

Component
Gearbox

Fluid
ROYAL PURPLE SYNFILM GT 320 (20 GAL)

DIAGNOSIS

Recommendation

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. Inspect/change breather 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 suitable for further service.

SAMPLE INFORMATION

| method | limit/base | current | history1 | history2 |
|---------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | WC0941388 | WC0850048 | WC0804702 |
| Sample Date | Client Info | 24 May 2024 | 24 Jan 2024 | 26 May 2023 |
| Machine Age | hrs | 0 | 0 | 0 |
| Oil Age | hrs | 0 | 0 | 0 |
| Oil Changed | Client Info | N/A | N/A | N/A |
| Sample Status | | ABNORMAL | ABNORMAL | ABNORMAL |

WEAR METALS

| method | limit/base | current | history1 | history2 | |
|----------|------------|------------------|----------|----------|----|
| Iron | ppm | ASTM D5185m >200 | <1 | 64 | 44 |
| Chromium | ppm | ASTM D5185m >10 | <1 | <1 | 0 |
| Nickel | ppm | ASTM D5185m >10 | <1 | <1 | 1 |
| Titanium | ppm | ASTM D5185m | <1 | 0 | 0 |
| Silver | ppm | ASTM D5185m | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m >25 | 3 | 2 | 0 |
| Lead | ppm | ASTM D5185m >50 | <1 | 0 | <1 |
| Copper | ppm | ASTM D5185m >200 | 1 | 7 | 33 |
| Tin | ppm | ASTM D5185m >10 | 1 | 0 | <1 |
| Vanadium | ppm | ASTM D5185m | <1 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | <1 | 0 | 0 |

ADDITIVES

| method | limit/base | current | history1 | history2 | |
|------------|------------|----------------|--------------|----------|-------|
| Boron | ppm | ASTM D5185m | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m | <1 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 1 | 0 | <1 |
| Manganese | ppm | ASTM D5185m | <1 | 0 | <1 |
| Magnesium | ppm | ASTM D5185m 90 | 8 | 4 | 9 |
| Calcium | ppm | ASTM D5185m | 21 | <1 | 0 |
| Phosphorus | ppm | ASTM D5185m | 222 | 142 | 23 |
| Zinc | ppm | ASTM D5185m | 25 | 23 | 4 |
| Sulfur | ppm | ASTM D5185m | 30069 | 31752 | 21092 |

CONTAMINANTS

| method | limit/base | current | history1 | history2 | |
|-----------|------------|------------------|--------------|----------|------|
| Silicon | ppm | ASTM D5185m >50 | 6 | 20 | 18 |
| Sodium | ppm | ASTM D5185m | 7 | 0 | 0 |
| Potassium | ppm | ASTM D5185m >20 | 3 | <1 | <1 |
| Water | % | ASTM D6304 >0.2 | 0.008 | 0.010 | 0.00 |
| ppm Water | ppm | ASTM D6304 >2000 | 80 | 107 | 0.00 |

FLUID CLEANLINESS

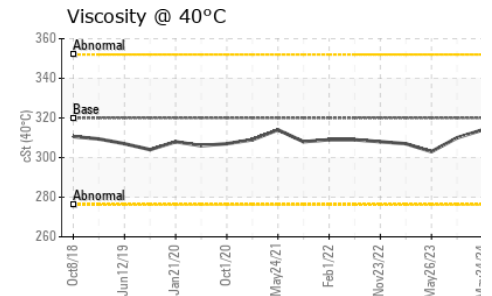
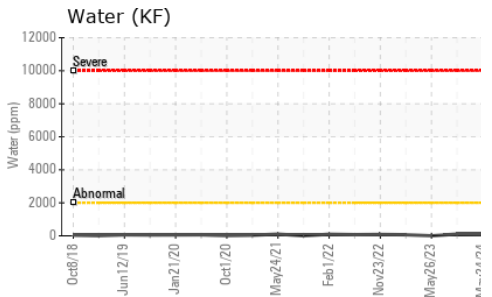
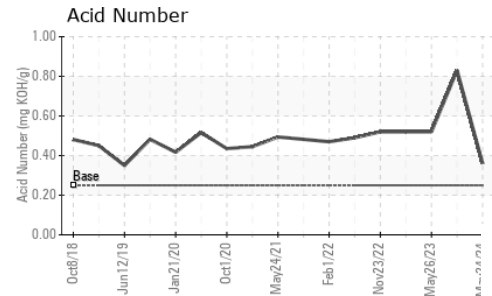
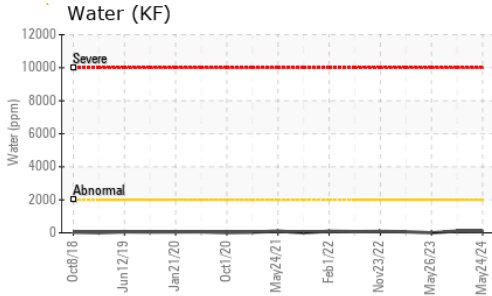
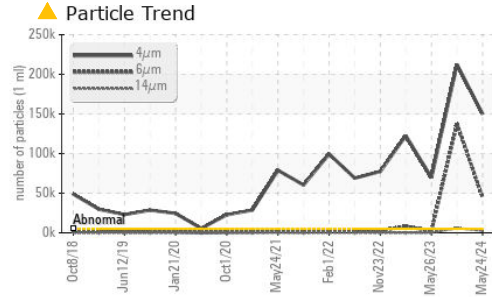
| method | limit/base | current | history1 | history2 |
|-----------------|------------------------|-------------------|------------|------------|
| Particles >4µm | ASTM D7647 >5000 | ▲ 149712 | ▲ 212344 | ▲ 69696 |
| Particles >6µm | ASTM D7647 >1300 | ▲ 44617 | ▲ 137755 | ▲ 2230 |
| Particles >14µm | ASTM D7647 >160 | ▲ 2484 | ▲ 6018 | 37 |
| Particles >21µm | ASTM D7647 >40 | ▲ 494 | ▲ 903 | 9 |
| Particles >38µm | ASTM D7647 >10 | 10 | ▲ 26 | 0 |
| Particles >71µm | ASTM D7647 >3 | 2 | 1 | 0 |
| Oil Cleanliness | ISO 4406 (c) >19/17/14 | ▲ 24/23/18 | ▲ 25/24/20 | ▲ 23/18/12 |

FLUID DEGRADATION

| method | limit/base | current | history1 | history2 | |
|------------------|------------|-----------------|-------------|----------|------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 0.25 | 0.36 | 0.83 | 0.52 |



OIL ANALYSIS REPORT



| 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 | 320 | 310 | 303 |

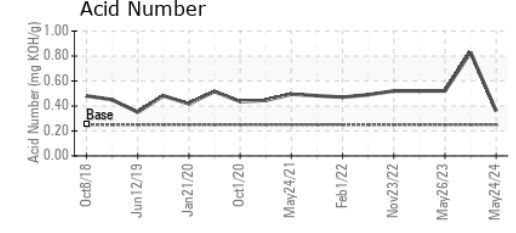
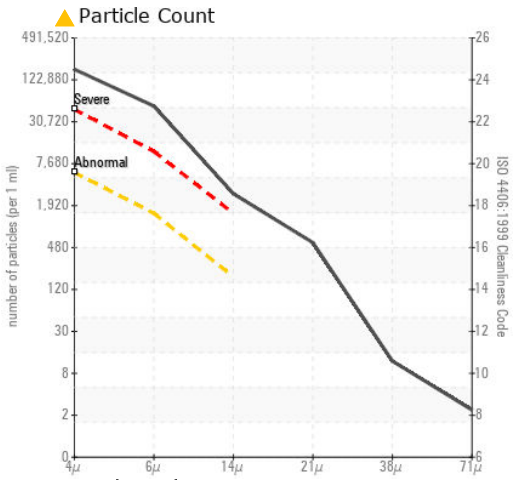
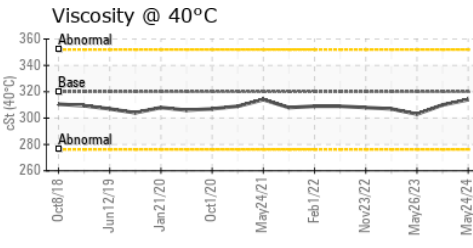
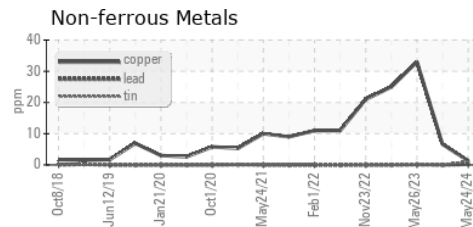
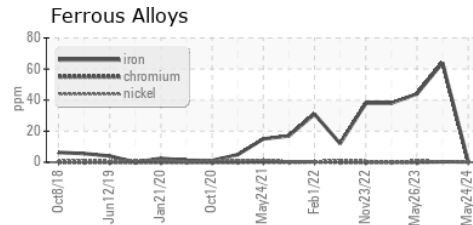
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
|---------------|--------|------------|---------|----------|----------|

Color

Bottom



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0941388
Lab Number : 06195446
Unique Number : 11057569
Test Package : PLANT
Received : 30 May 2024
Tested : 31 May 2024
Diagnosed : 31 May 2024 - Angela Borella

AJINOMOTO ANIMAL NUTRITION NORTH AMERICA, INC.
 1116 HWY 137
 EDDYVILLE, IA
 US 52553

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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 F: