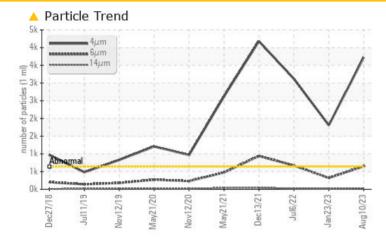


PROBLEM SUMMARY

North Plant-Crystallization Machine Id PU-2513E

Component Lube System Fluid ROYAL PURPLE SYNFILM GT 46 (20 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

| PROBLEMATIC TEST RESULTS | | | | | | | |
|--------------------------|--------------|-----------|----------|--------------|---------------|--|--|
| Sample Status | | | ABNORMAL | ABNORMAL | ABNORMAL | | |
| Particles >4µm | ASTM D7647 | >640 | <u> </u> | 1809 | A 3121 | | |
| Particles >6µm | ASTM D7647 | >160 | <u> </u> | A 320 | 6 70 | | |
| Oil Cleanliness | ISO 4406 (c) | >16/14/12 | <u> </u> | ▲ 18/15/11 | ▲ 19/17/12 | | |

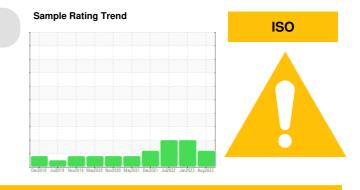
Customer Id: AJIEDD Sample No.: WC0804719 Lab Number: 05926131 Test Package: PLANT



To manage this report scan the QR code

To discuss the diagnosis or test data: Doug Bogart +1 (800)237-1369 x4016 <u>dougb@wearcheckusa.com</u>

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 if applicable. | | |

HISTORICAL DIAGNOSIS

WEAR

23 Jan 2023 Diag: Don Baldridge

We recommend you service the filters on this component. Resample at the next service interval to monitor. The lead level is abnormal. All other component wear rates are normal. There is a high amount of silt (particulates < 14 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

06 Jul 2022 Diag: Don Baldridge

WEAR



We recommend you service the filters on this component. Resample at the next service interval to monitor. The lead level is abnormal. All other component wear rates are normal. There is a high amount of silt (particulates < 14 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.



13 Dec 2021 Diag: Angela Borella

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of silt (particulates < 14 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.







OIL ANALYSIS REPORT

Area North Plant-Crystallization Machine Id PU-2513E

Lube System Fluid ROYAL PURPLE SYNFILM GT 46 (20 GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

Wear

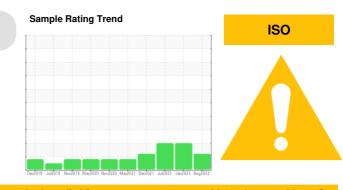
All component wear rates are normal.

Contamination

There is a high amount of 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 suitable for further service.



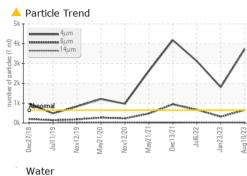
| Sample Number | | Client Info | | WC0804719 | WC0765946 | WC0686393 |
|------------------|----------|--------------|------------|-----------------|--------------|---------------------------|
| Sample Date | | Client Info | | 10 Aug 2023 | 23 Jan 2023 | 06 Jul 2022 |
| Machine Age | mths | Client Info | | 0 | 0 | 0 |
| Oil Age | mths | Client Info | | 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 | >20 | 6 | 6 | 3 |
| Chromium | ppm | ASTM D5185m | >10 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >10 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185m | >10 | 0 | 0 | 0 |
| Lead | ppm | ASTM D5185m | >10 | 4 | ▲ 11 | ▲ 12 |
| Copper | ppm | ASTM D5185m | >75 | 22 | 15 | 6 |
| Tin | ppm | | >10 | <1 | 0 | <1 |
| Antimony | ppm | ASTM D5185m | , 10 | | | |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| | ррш | | | | - | |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | 0 | 0 | 0 | <1 |
| Barium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Magnesium | ppm | ASTM D5185m | 95 | 17 | 24 | 25 |
| Calcium | ppm | ASTM D5185m | 0 | 7 | 19 | 28 |
| Phosphorus | ppm | ASTM D5185m | 0 | 150 | 163 | 154 |
| Zinc | ppm | ASTM D5185m | 0 | 25 | 18 | 11 |
| Sulfur | ppm | ASTM D5185m | 15000 | 19382 | 18352 | 21027 |
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >20 | 13 | 9 | 7 |
| Sodium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Potassium | ppm | ASTM D5185m | >20 | <1 | <1 | 0 |
| Water | % | ASTM D6304 | >0.1 | 0.006 | 0.003 | 0.007 |
| ppm Water | ppm | ASTM D6304 | >1000 | 61.4 | 35.6 | 77.2 |
| FLUID CLEANLIN | ESS | method | limit/base | current | history1 | history2 |
| Particles >4µm | | ASTM D7647 | >640 | A 3723 | ▲ 1809 | A 3121 |
| Particles >6µm | | ASTM D7647 | >160 | <u> </u> | A 320 | 6 70 |
| Particles >14µm | | ASTM D7647 | >40 | 23 | 15 | 22 |
| Particles >21µm | | ASTM D7647 | >10 | 6 | 5 | 7 |
| Particles >38µm | | ASTM D7647 | >3 | 1 | 1 | 0 |
| Particles >71µm | | ASTM D7647 | >3 | 0 | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >16/14/12 | 19/17/12 | ▲ 18/15/11 | ▲ 19/17/12 |
| FLUID DEGRADA | | method | limit/base | current | history1 | history2 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 0.66 | 0.63 | 0.57 By: Alan Brittain |

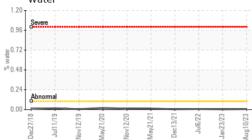
Report Id: AJIEDD [WUSCAR] 05926131 (Generated: 08/17/2023 14:18:44) Rev: 1

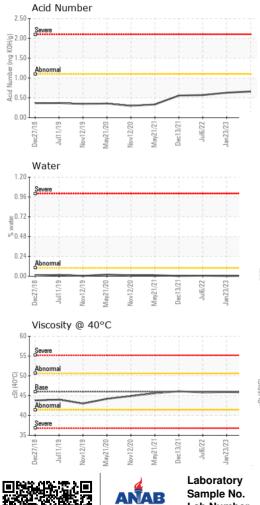
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OIL ANALYSIS REPORT

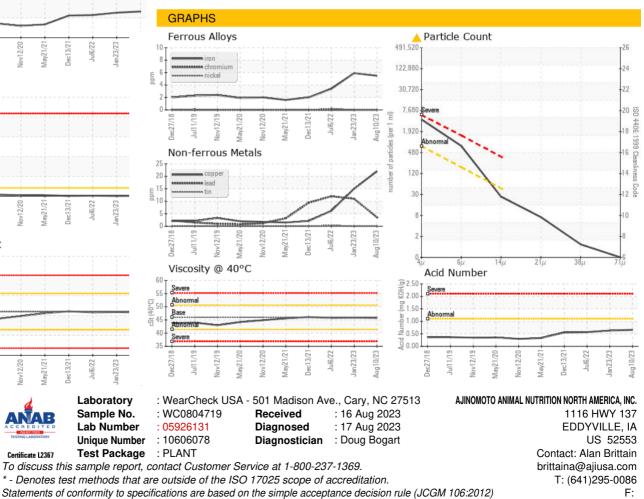






| VISUAL | | method | limit/base | current | history1 | history2 |
|------------------|--------|-----------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | LIGHT | NONE | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.1 | NEG | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG | NEG |
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
| Visc @ 40°C | cSt | ASTM D445 | 46.0 | 45.8 | 45.9 | 45.8 |
| SAMPLE IMAGES | | method | limit/base | current | history1 | history2 |
| Color | | | | D. | | |
| Pottom | | | | | | |

Bottom



Submitted By: Alan Brittain

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