PLANT PetroCard™ MORE THAN JUST FUEL.

# OIL ANALYSIS REPORT

| | |
|---|---|
| WEAR | NORMAL |
| CONTAMINATION | ABNORMAL |
| FLUID CONDITION | NORMAL |

Area
## OCC AND PULP
Machine Id
## 424.4000 #1 HI-CONSISTENCY PULPER
Component
## Agitator Gearbox
Fluid
## SHELL MORLINA S4 B 150 (--- GAL)

## RECOMMENDATION

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. ( Customer Sample Comment: Component Filter not changed )

## WEAR

All component wear rates are normal.

## CONTAMINATION

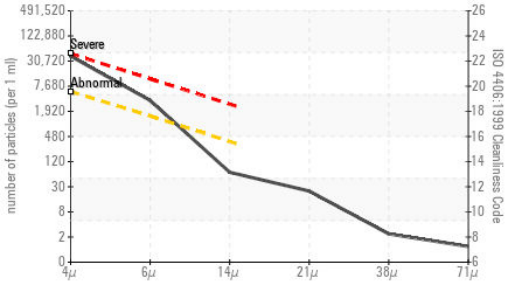
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

## FLUID CONDITION

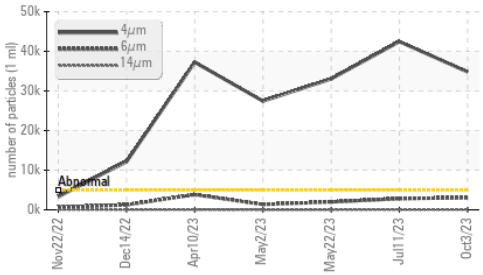
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | PE0000618 | PE0000939 | PE0000809 |
| Sample Date | | Client Info | | 03 Oct 2023 | 11 Jul 2023 | 22 May 2023 |
| Machine Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | N/A | N/A | N/A |
| Filter Changed | | Client Info | | N/A | N/A | N/A |
| Sample Status | | | | ABNORMAL | ABNORMAL | ABNORMAL |
| PQ | | ASTM D8184 | | 14 | 16 | 16 |
| Iron | ppm | ASTM D5185m | >150 | 5 | 4 | 3 |
| Chromium | ppm | ASTM D5185m | >10 | 0 | 0 | <1 |
| Nickel | ppm | ASTM D5185m | >10 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | 0 | 0 | 0 |
| Lead | ppm | ASTM D5185m | >100 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >50 | <1 | 0 | 0 |
| Tin | ppm | ASTM D5185m | >10 | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | <1 | <1 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silicon | ppm | ASTM D5185m | >50 | 11 | 11 | 10 |
| Potassium | ppm | ASTM D5185m | >20 | 1 | 2 | 2 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| Particles >4µm | | ASTM D7647 | >5000 | ▲ 34799 | ▲ 42446 | ▲ 33058 |
| Particles >6µm | | ASTM D7647 | >1300 | ▲ 3059 | ▲ 2832 | ● 1991 |
| Particles >14µm | | ASTM D7647 | >320 | 59 | 38 | 17 |
| Particles >21µm | | ASTM D7647 | >80 | 21 | 8 | 4 |
| Particles >38µm | | ASTM D7647 | >20 | 2 | 0 | 1 |
| Particles >71µm | | ASTM D7647 | >4 | 1 | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >19/17/15 | ▲ 22/19/13 | ▲ 23/19/12 | ▲ 22/18/11 |
| Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | 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 |
| Sodium | ppm | ASTM D5185m | | <1 | <1 | 0 |
| 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 | 0 | <1 |
| Magnesium | ppm | ASTM D5185m | | 0 | 1 | <1 |
| Calcium | ppm | ASTM D5185m | | 6 | 0 | 2 |
| Phosphorus | ppm | ASTM D5185m | | 439 | 446 | 436 |
| Zinc | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Sulfur | ppm | ASTM D5185m | | 735 | 857 | 822 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 0.37 | 0.38 | 0.41 |
| Visc @ 40°C | cSt | ASTM D445 | 150 | 154 | 152 | 152 |

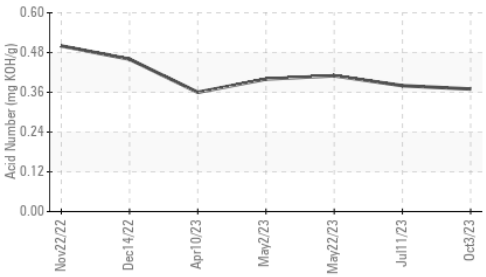
Particle Count



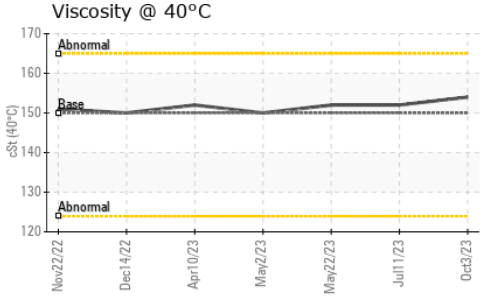

Particle Trend



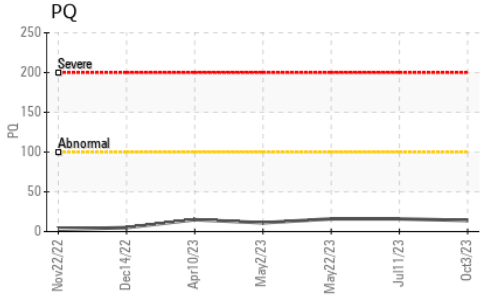

Acid Number



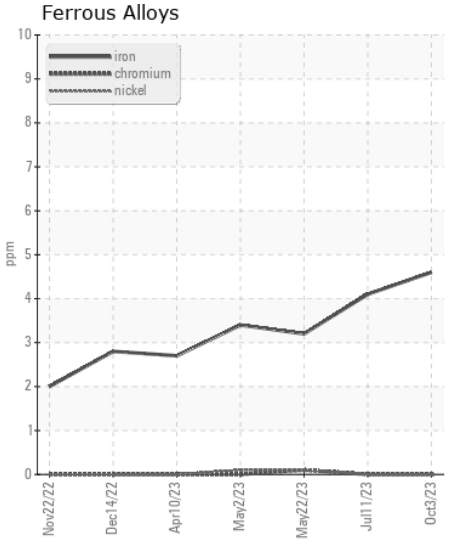

Viscosity @ 40°C



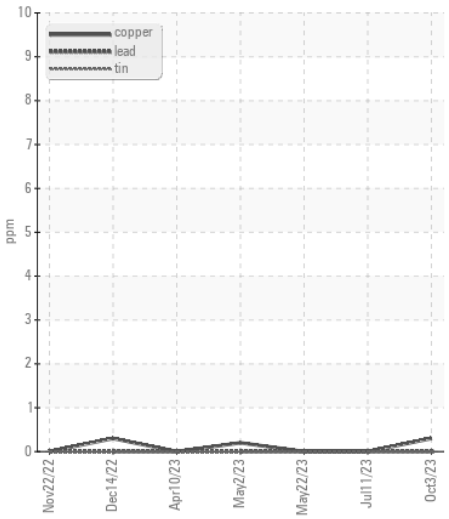

PQ



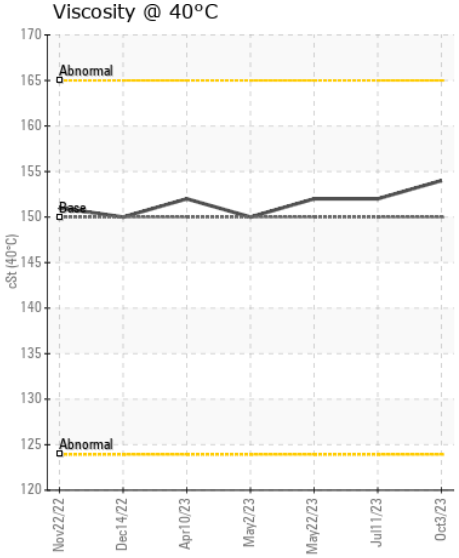

Ferrous Alloys



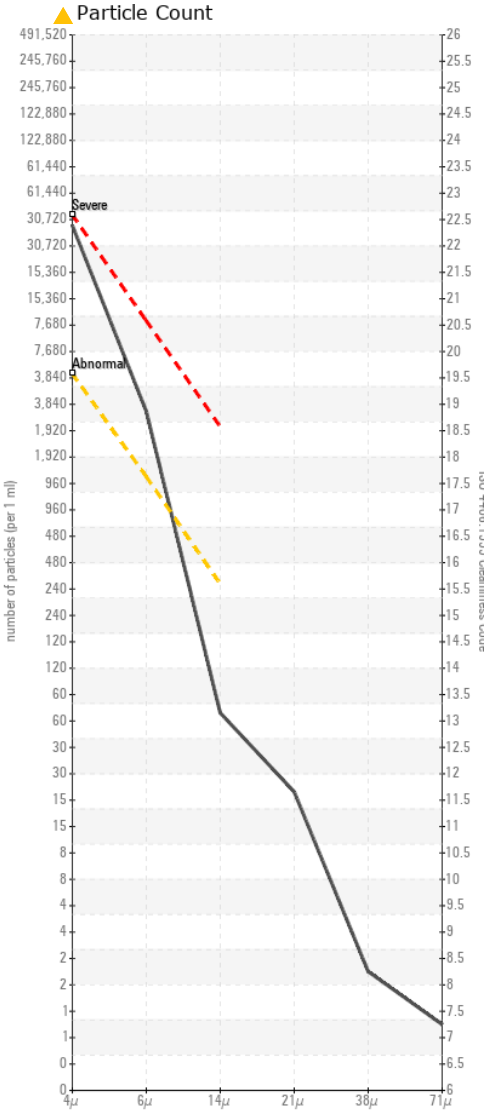

Non-ferrous Metals



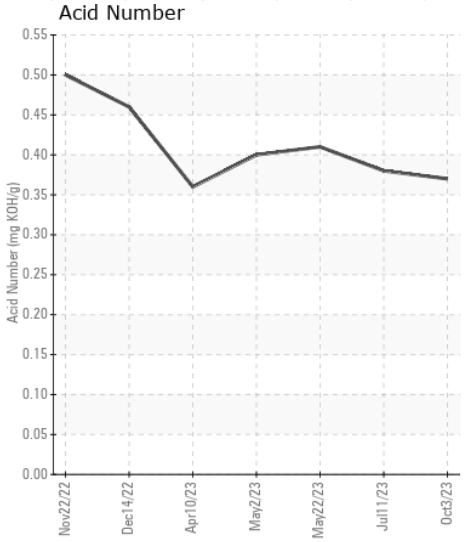

Viscosity @ 40°C




Particle Count




Acid Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : PE0000618 **Received** : 06 Oct 2023
**Lab Number** : 05972170 **Tested** : 09 Oct 2023
**Unique Number** : 10684120 **Diagnosed** : 11 Oct 2023 - Don Baldridge
**Test Package** : PLANT ( Additional Tests: ICP, KV40, PQ, PrtCount, SCREEN )

*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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