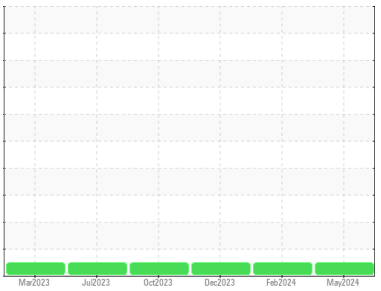
# OIL ANALYSIS REPORT

Sample Rating Trend




NORMAL

Area
**[212411]**
Machine Id
**AMERICAN BALER 4029NN-10T30 ACME - 10404**
Component
**Hydraulic System**
Fluid
**AW HYDRAULIC OIL ISO 46 (--- GAL)**

## DIAGNOSIS

**Recommendation**
Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

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

**Contamination**
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

**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 | | **WC0911544** | WC0858572 | WC0858568 |
| Sample Date | | Client Info | | **25 May 2024** | 11 Feb 2024 | 30 Dec 2023 |
| Machine Age | yrs | Client Info | | **0** | 0 | 0 |
| Oil Age | yrs | Client Info | | **0** | 0 | 0 |
| Oil Changed | | Client Info | | **Filtered** | Filtered | Filtered |
| Sample Status | | | | **NORMAL** | NORMAL | NORMAL |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Water | | WC Method | >0.1 | **NEG** | NEG | NEG |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >20 | **<1** | 0 | 0 |
| Chromium | ppm | ASTM D5185m | >10 | **<1** | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >10 | **0** | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | **<1** | 0 | 0 |
| Silver | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >10 | **1** | 0 | 0 |
| Lead | ppm | ASTM D5185m | >10 | **<1** | 0 | 0 |
| Copper | ppm | ASTM D5185m | >75 | **2** | 1 | 2 |
| Tin | ppm | ASTM D5185m | >10 | **<1** | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | **<1** | 0 | 0 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | 5 | **0** | 0 | 0 |
| Barium | ppm | ASTM D5185m | 5 | **0** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 5 | **<1** | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Magnesium | ppm | ASTM D5185m | 25 | **16** | 16 | 9 |
| Calcium | ppm | ASTM D5185m | 200 | **50** | 52 | 48 |
| Phosphorus | ppm | ASTM D5185m | 300 | **310** | 259 | 244 |
| Zinc | ppm | ASTM D5185m | 370 | **323** | 280 | 248 |
| Sulfur | ppm | ASTM D5185m | 2500 | **869** | 643 | 473 |

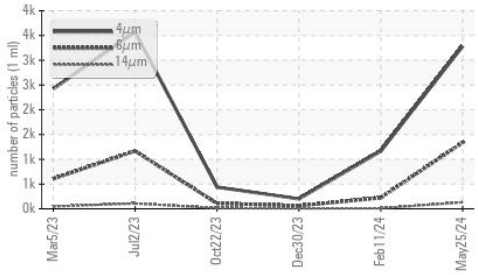
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >20 | **0** | <1 | 0 |
| Sodium | ppm | ASTM D5185m | | **0** | 0 | 2 |
| Potassium | ppm | ASTM D5185m | >20 | **<1** | 0 | 0 |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | | **3283** | 1164 | 201 |
| Particles >6µm | | ASTM D7647 | >5000 | **1337** | 223 | 62 |
| Particles >14µm | | ASTM D7647 | >640 | **131** | 11 | 7 |
| Particles >21µm | | ASTM D7647 | >160 | **28** | 4 | 2 |
| Particles >38µm | | ASTM D7647 | >40 | **1** | 0 | 0 |
| Particles >71µm | | ASTM D7647 | >10 | **0** | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >--/19/16 | **19/18/14** | 17/15/11 | 15/13/10 |

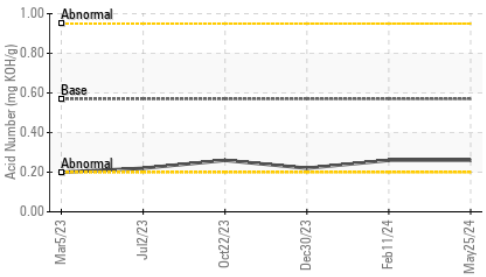
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.57 | **0.26** | 0.26 | 0.22 |

# OIL ANALYSIS REPORT

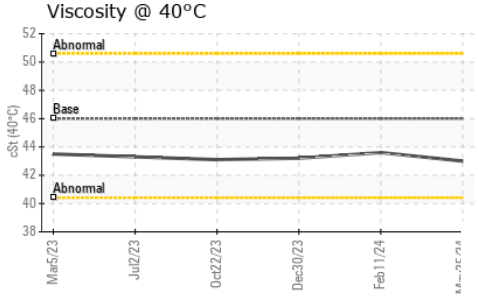
Particle Trend



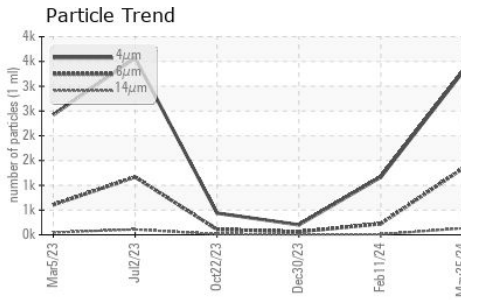

Acid Number




Viscosity @ 40°C

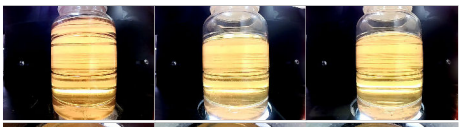



Particle Trend



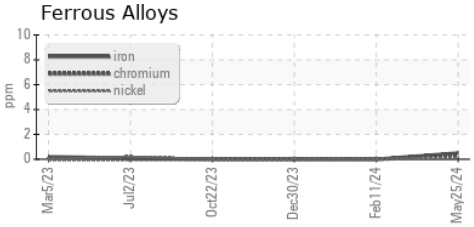

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Silt | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Debris | scalar | *Visual | NONE | **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 |
| Free Water | scalar | *Visual | | **NEG** | NEG | NEG |

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 46 | **43.0** | 43.6 | 43.2 |

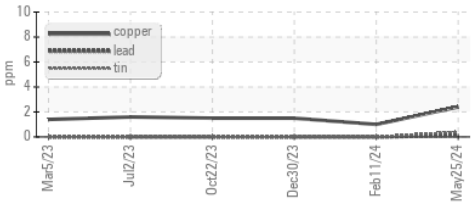
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  | | |
| Bottom | | |  | | |

## GRAPHS

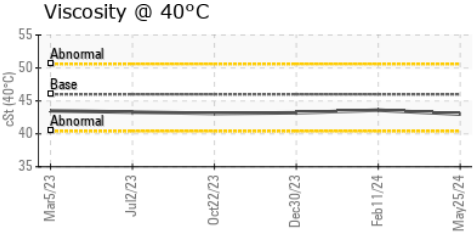
Ferrous Alloys



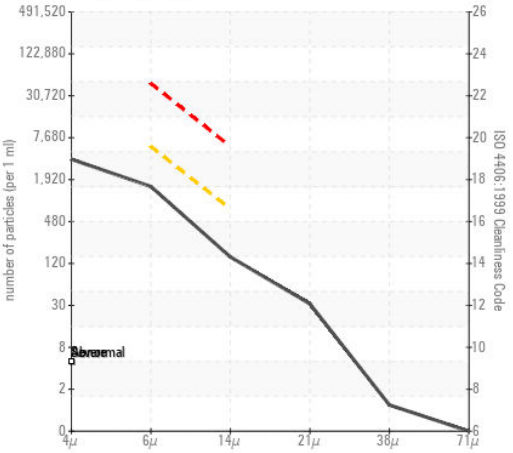

Non-ferrous Metals



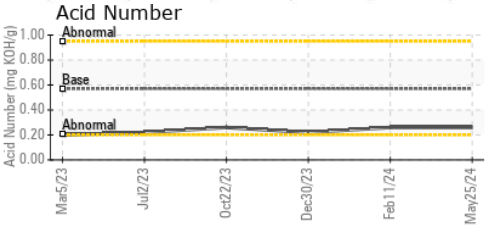

Viscosity @ 40°C




Particle Count




Acid Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : WC0911544
**Lab Number** : 06198176
**Unique Number** : 11060299
**Test Package** : IND 2

**Received** : 03 Jun 2024
**Tested** : 05 Jun 2024
**Diagnosed** : 05 Jun 2024 - Wes Davis

*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)*

**ADVANCED EQUIPMENT SALES**
535 HAGEY RD
SOUDERTON, PA
US 18964
Contact: JEFF BURNLEY
jburnley@aesales.net
T: (215)723-7200
F: (215)723-7201