



Machine Id
CHA
Component
Port Reduction Gear
Fluid
Reduction Gear Oil (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | MW05843482 | MW05824239 | MW05766009 |
| Sample Date | | Client Info | | 09 May 2023 | 18 Apr 2023 | 12 Feb 2023 |
| Machine Age | hrs | Client Info | | 51353 | 50372 | 49746 |
| Oil Age | hrs | Client Info | | 1610 | 626 | 1465 |
| 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 | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >150 | 2 | 1 | 2 |
| Chromium | ppm | ASTM D5185m | >10 | 0 | <1 | 0 |
| Nickel | ppm | ASTM D5185m | >10 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | 0 | <1 | <1 |
| Lead | ppm | ASTM D5185m | >100 | 0 | 0 | <1 |
| Copper | ppm | ASTM D5185m | >50 | <1 | <1 | <1 |
| Tin | ppm | ASTM D5185m | >10 | 0 | 0 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

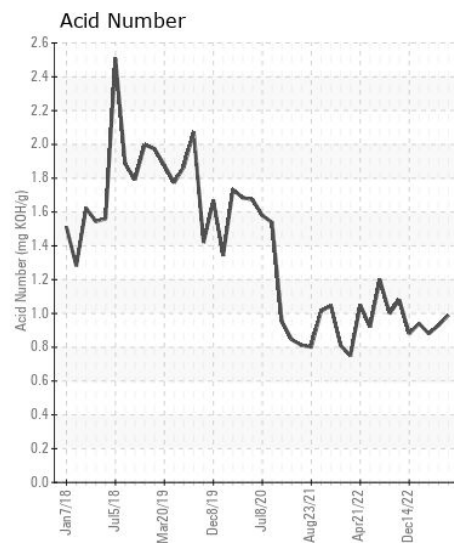
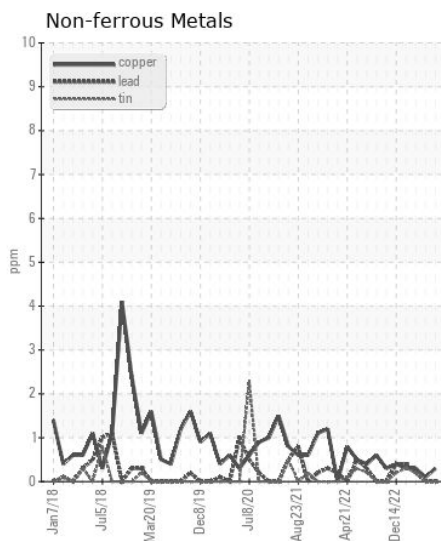
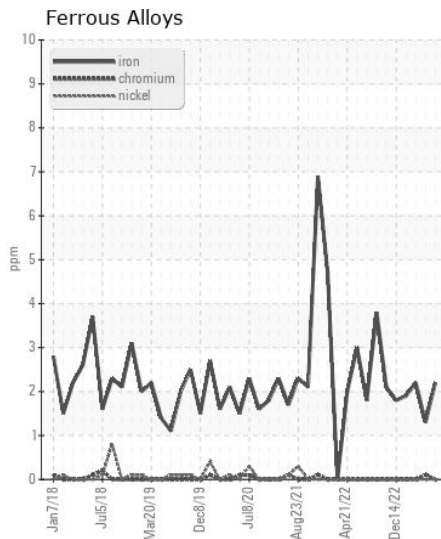
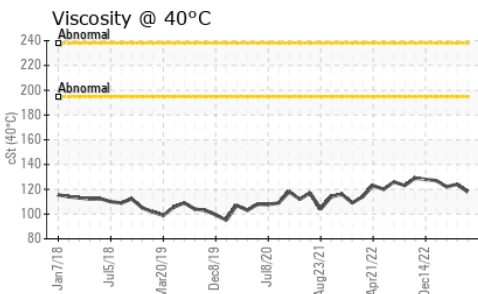
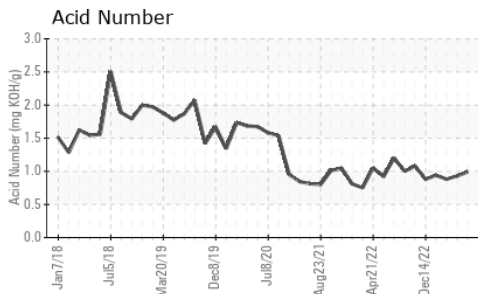
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|--------|-------------|-------|--------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >50 | 3 | 3 | 4 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | <1 | <1 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| 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 |

FLUID CONDITION

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

| | | | | | | |
|------------------|----------|-------------|--|--------------|------|------|
| Sodium | ppm | ASTM D5185m | | <1 | 2 | 2 |
| Boron | ppm | ASTM D5185m | | 292 | 280 | 305 |
| Barium | ppm | ASTM D5185m | | 2 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 43 | 34 | 38 |
| Manganese | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | | 129 | 102 | 113 |
| Calcium | ppm | ASTM D5185m | | 2241 | 2175 | 2161 |
| Phosphorus | ppm | ASTM D5185m | | 750 | 696 | 677 |
| Zinc | ppm | ASTM D5185m | | 866 | 802 | 763 |
| Sulfur | ppm | ASTM D5185m | | 2982 | 3193 | 3153 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 0.99 | 0.93 | 0.88 |
| Visc @ 40°C | cSt | ASTM D445 | | 118 | 124 | 122 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW05843482
Lab Number : 05843482
Unique Number : 10467589
Test Package : MAR 2

Received : 10 May 2023
Tested : 15 May 2023
Diagnosed : 15 May 2023 - Jonathan Hester

ILLINOIS MARINE TOWING
 PO BOX 391
 LEMONT, IL
 US 60439

Contact: RHETT DANIEL
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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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