



OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area

[1137]

Machine Id

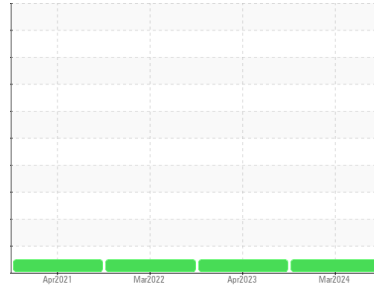
C&M CM3442-3DAT48 H1811026 - FIRST QUALITY

Component

Hydraulic System

Fluid

{not provided} (--- 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 | | WC0885301 | WC0759702 | WC0633953 |
| Sample Date | Client Info | | 20 Mar 2024 | 05 Apr 2023 | 31 Mar 2022 |
| 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 | 2 | 3 | 1 |
| Chromium | ppm | ASTM D5185m >10 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185m >10 | 0 | <1 | 0 |
| Titanium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185m >10 | 0 | <1 | 0 |
| Lead | ppm | ASTM D5185m >10 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185m >75 | <1 | <1 | <1 |
| Tin | ppm | ASTM D5185m >10 | 0 | 0 | <1 |
| Antimony | ppm | ASTM D5185m | --- | --- | --- |
| Vanadium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | 0 | 0 | 0 |

ADDITIVES

| | method | limit/base | current | history1 | history2 |
|------------|--------|-------------|-------------|----------|----------|
| Boron | ppm | ASTM D5185m | 7 | 10 | 12 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 2 | 4 | 3 |
| Manganese | ppm | ASTM D5185m | 0 | <1 | 0 |
| Magnesium | ppm | ASTM D5185m | 17 | 31 | 25 |
| Calcium | ppm | ASTM D5185m | 191 | 238 | 211 |
| Phosphorus | ppm | ASTM D5185m | 450 | 543 | 468 |
| Zinc | ppm | ASTM D5185m | 566 | 755 | 645 |
| Sulfur | ppm | ASTM D5185m | 4979 | 6918 | 4848 |

CONTAMINANTS

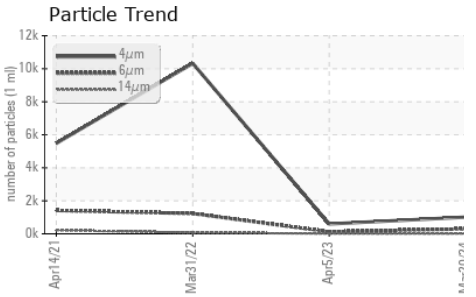
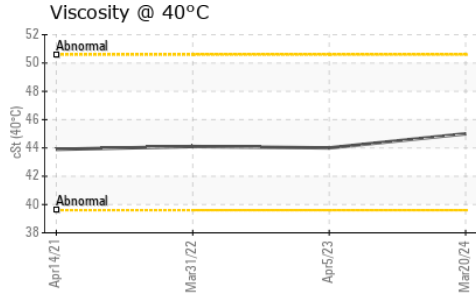
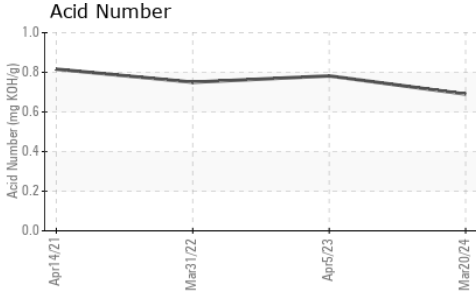
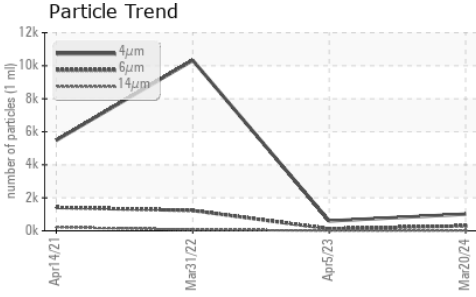
| | method | limit/base | current | history1 | history2 |
|-----------|--------|-----------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m >20 | <1 | <1 | 0 |
| Sodium | ppm | ASTM D5185m | 2 | 1 | 0 |
| Potassium | ppm | ASTM D5185m >20 | 0 | <1 | 0 |

FLUID CLEANLINESS

| | method | limit/base | current | history1 | history2 |
|-----------------|--------------|------------|-----------------|----------|----------|
| Particles >4µm | ASTM D7647 | | 1011 | 598 | 10326 |
| Particles >6µm | ASTM D7647 | >5000 | 297 | 122 | 1230 |
| Particles >14µm | ASTM D7647 | >640 | 12 | 10 | 68 |
| Particles >21µm | ASTM D7647 | >160 | 2 | 4 | 18 |
| Particles >38µm | ASTM D7647 | >40 | 0 | 0 | 0 |
| Particles >71µm | ASTM D7647 | >10 | 0 | 0 | 0 |
| Oil Cleanliness | ISO 4406 (c) | >--/19/16 | 17/15/11 | 16/14/10 | 21/17/13 |



OIL ANALYSIS REPORT

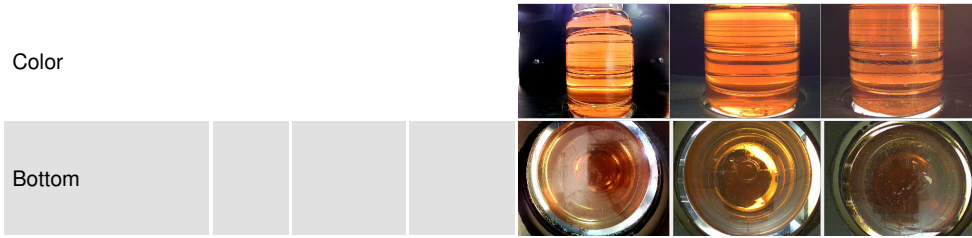


| FLUID DEGRADATION | method | limit/base | current | history1 | history2 |
|-------------------|----------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.69 | 0.782 | 0.75 |

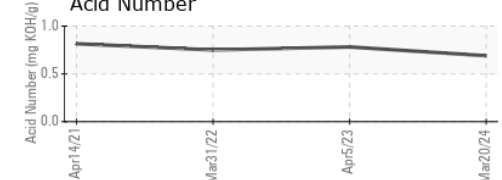
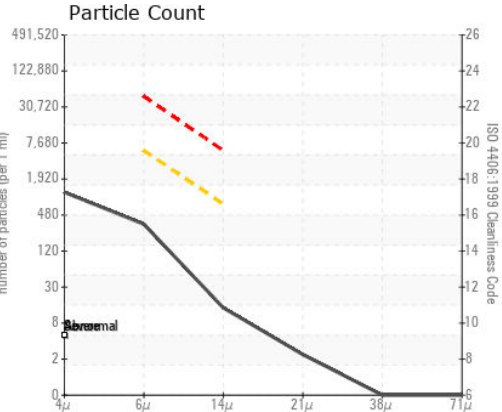
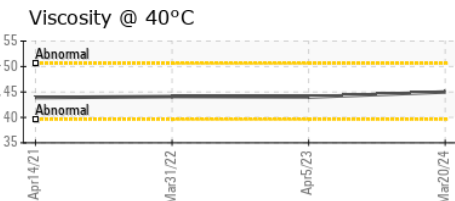
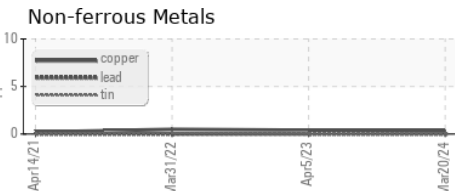
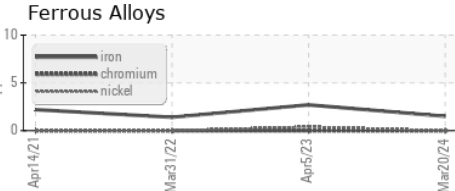
| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | LIGHT |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.1 | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|-------------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 45.0 | 44.0 | 44.1 |

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



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0885301 **Received** : 28 Mar 2024
Lab Number : **06132730** **Tested** : 01 Apr 2024
Unique Number : 10952195 **Diagnosed** : 01 Apr 2024 - Wes Davis
Test Package : IND 2

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

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)