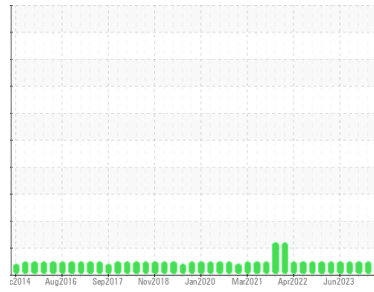




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
[60440529 SR]
 Machine Id
PETZ 7 MD (S/N 20061726)
 Component
Gearbox
 Fluid
GEAR OIL ISO 220 (--- GAL)

DIAGNOSIS

- Recommendation**
 Resample at the next service interval to monitor.
- Wear**
 All component wear rates are normal.
- Contamination**
 There is no indication of any contamination in the oil.
- 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 | | WC0854326 | WC0854428 | WC0854145 |
| Sample Date | Client Info | | 31 May 2024 | 07 Mar 2024 | 14 Dec 2023 |
| Machine Age | mls | Client Info | 0 | 0 | 0 |
| Oil Age | mls | Client Info | 0 | 0 | 0 |
| Oil Changed | Client Info | | Not Changed | Not Changed | Not Changed |
| Sample Status | | | NORMAL | NORMAL | NORMAL |

CONTAMINATION

| | method | limit/base | current | history1 | history2 |
|-------|-----------|------------|------------|----------|----------|
| Water | WC Method | >0.2 | NEG | NEG | NEG |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|----------|--------|------------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m >200 | 3 | 1 | 1 |
| Chromium | ppm | ASTM D5185m >15 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185m >15 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | <1 | 0 | 0 |
| Silver | ppm | ASTM D5185m | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m >25 | 1 | 0 | 2 |
| Lead | ppm | ASTM D5185m >100 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185m >200 | <1 | 0 | 0 |
| Tin | ppm | ASTM D5185m >25 | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | <1 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | 0 | 0 | 0 |

ADDITIVES

| | method | limit/base | current | history1 | history2 |
|------------|--------|-------------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m 50 | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m 15 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m 15 | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | <1 | 0 | <1 |
| Magnesium | ppm | ASTM D5185m 50 | 0 | 0 | 1 |
| Calcium | ppm | ASTM D5185m 50 | 6 | 5 | 6 |
| Phosphorus | ppm | ASTM D5185m 350 | 250 | 210 | 241 |
| Zinc | ppm | ASTM D5185m 100 | 9 | 0 | 1 |
| Sulfur | ppm | ASTM D5185m 12500 | 2304 | 2039 | 1882 |

CONTAMINANTS

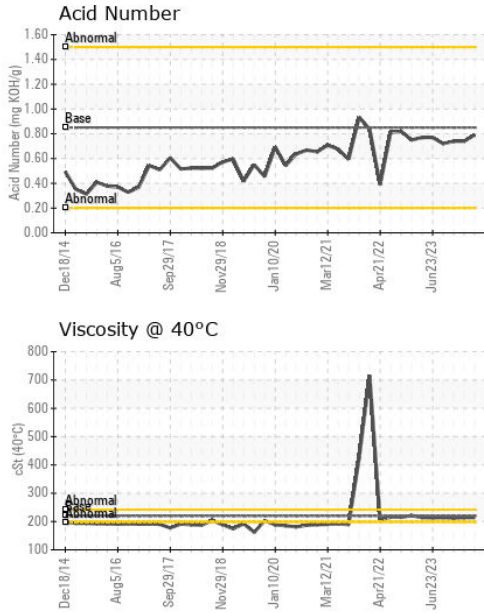
| | method | limit/base | current | history1 | history2 |
|-----------|--------|-----------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m >50 | 3 | 2 | 2 |
| Sodium | ppm | ASTM D5185m | 1 | 0 | <1 |
| Potassium | ppm | ASTM D5185m >20 | <1 | 0 | 1 |

FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 |
|------------------|----------|-----------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 0.85 | 0.79 | 0.74 | 0.74 |



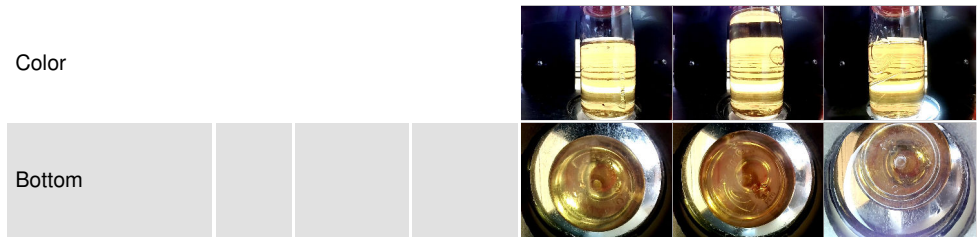
OIL ANALYSIS REPORT



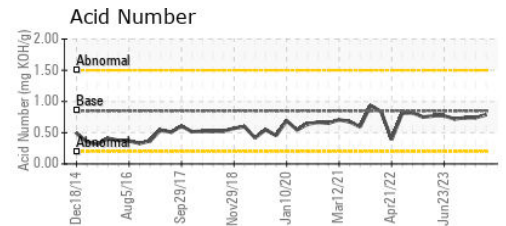
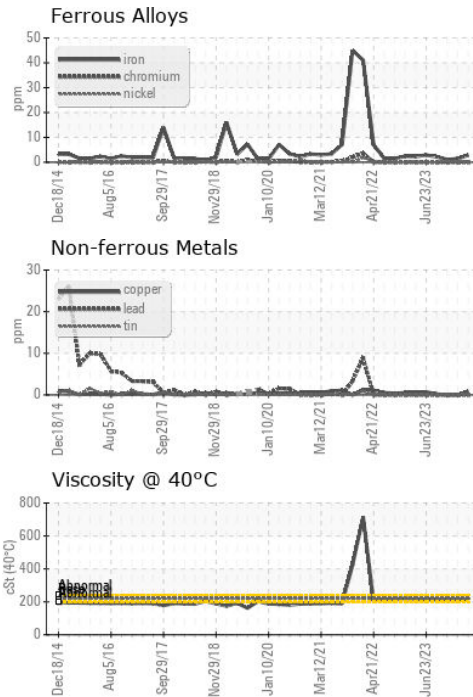
| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.2 | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 220 | 214 | 212 |

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



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0854326
Lab Number : 06211873
Unique Number : 11084737
Test Package : IND 2

Received : 17 Jun 2024
Tested : 18 Jun 2024
Diagnosed : 19 Jun 2024 - Don Baldrige

MARS CHOCOLATE
 2019 NORTH OAK PARK
 CHICAGO, IL
 US 60707
 Contact: TONY FIORE
 tony.fiore@effem.com
 T: (773)745-2279
 F:

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)