

## **GREASE ANALYSIS**

Sample Rating Trend

### NORMAL



**Non-Drive End Grease** 

MOBIL MOBILITH SHC SERIES 100 (--- GAL)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal. The ferrography results are normal indicating no abnormal wear in the system.

#### **Grease Condition**

Linear Sweep Voltammetry (RULER - ASTM D6971) testing indicates normal levels of antioxidants present in the oil. There was only a minor decrease in the oil bleed of the grease. The condition of the grease is acceptable for the time in service.

#### Contaminants

There is no indication of any contamination in the grease.





Report Id: DUFPIC [WCAMIS] 02606864 (Generated: 01/17/2024 13:07:39) Rev: 1





| SAMPLE INFORM          | IATION     | method        | limit/base | current     | history1         | history2 |
|------------------------|------------|---------------|------------|-------------|------------------|----------|
| Sample Number          |            | Client Info   |            | WC0896566   |                  |          |
| Sample Date            |            | Client Info   |            | 14 Dec 2023 |                  |          |
| Machine Age            | hrs        | Client Info   |            | 0           |                  |          |
| Grease Age             | hrs        | Client Info   |            | 0           |                  |          |
| Grease Serviced        |            | Client Info   |            | N/A         |                  |          |
| Sample Status          |            |               |            | NORMAL      |                  |          |
| WEAR METALS            |            | method        | limit/base | current     | history1         | history2 |
| PQ                     |            | ASTM D8184*   | >200       | 30          |                  |          |
| Iron                   | ppm        | ASTM D5185(m) | >250       | 7           |                  |          |
| Chromium               | ppm        | ASTM D5185(m) | >10        | 0           |                  |          |
| Nickel                 | ppm        | ASTM D5185(m) | >5         | <1          |                  |          |
| Cadmium                | ppm        | ASTM D5185(m) |            | 0           |                  |          |
| Titanium               | ppm        | ASTM D5185(m) |            | 0           |                  |          |
| Vanadium               | ppm        | ASTM D5185(m) |            | 0           |                  |          |
| Lead                   | ppm        | ASTM D5185(m) | >25        | 0           |                  |          |
| Copper                 | ppm        | ASTM D5185(m) | >75        | <1          |                  |          |
| Tin                    | ppm        | ASTM D5185(m) | >5         | 0           |                  |          |
| Silver                 | ppm        | ASTM D5185(m) | >5         | 0           |                  |          |
| ADDITIVES              |            | method        | limit/base | current     | history1         | history2 |
| Boron                  | ppm        | ASTM D5185(m) | 0          | 0           |                  |          |
| Magnesium              | ppm        | ASTM D5185(m) | 0          | <1          |                  |          |
| Manganese              | ppm        | ASTM D5185(m) | 0          | 0           |                  |          |
| Molybdenum             | ppm        | ASTM D5185(m) | 0          | 0           |                  |          |
| Phosphorus             | ppm        | ASTM D5185(m) | 200        | 215         |                  |          |
| Zinc                   | ppm        | ASTM D5185(m) | 250        | 297         |                  |          |
| Antimony               | ppm        | ASTM D5185(m) | 0          | 0           |                  |          |
| THICKENER/SOA          | ۱P         | method        | limit/base | current     | history1         | history2 |
| Aluminum               | ppm        | ASTM D5185(m) | 0          | <1          |                  |          |
| Barium                 | ppm        | ASTM D5185(m) | 0          | 0           |                  |          |
| Calcium                | ppm        | ASTM D5185(m) | 0          | 2           |                  |          |
| Sodium                 | ppm        | ASTM D5185(m) | 2          | 2           |                  |          |
| Lithium                | ppm        | ASTM D5185(m) | 400        | 481         |                  |          |
| Sulfur                 | ppm        | ASTM D5185(m) | 750        | 875         |                  |          |
| CONTAMINANTS           |            | method        | limit/base | current     | history1         | history2 |
| Silicon                | ppm        | ASTM D5185(m) | >150       | <1          |                  |          |
| Potassium              | ppm        | ASTM D5185(m) |            | <1          |                  |          |
| Water                  | %          | ASTM D6304*   | >0.1       | 0.035       |                  |          |
| ppm Water              | ppm        | ASTM D6304*   | >1000      | 356         |                  |          |
| GREASE CONDI           | ΓΙΟΝ       | method        | limit/base | current     | history1         | history2 |
| Grease Color           |            | Visual*       | red        | Red         |                  |          |
| Texture                |            | In-house*     |            | Short fiber |                  |          |
| NLGI Consistency       | NLGI Scale | SKF Method*   | 2          | 2           |                  |          |
| Oil Separation (Bleed) | %          | SKF Method*   | >+/-25%    | -5.9        |                  |          |
| Anti-Oxidant 1         | %          | ASTM D6971*   | <25%       | 100         |                  |          |
| Anti-Oxidant 2         | %          | ASTM D6971*   | <25%       | 37          |                  |          |
| 2.07.39) Boy: 1        |            |               |            | Conto       | ct/Location: ALE |          |

Contact/Location: AI Roffey - DUFPIC



## **GREASE ANALYSIS**



Contact/Location: AI Roffey - DUFPIC

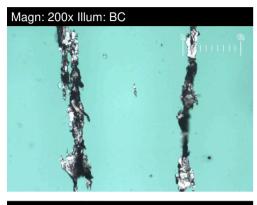


## FERROGRAPHY REPORT

# ID FAN #4 NON-DRIVE END BEARING

Non-Drive End Grease

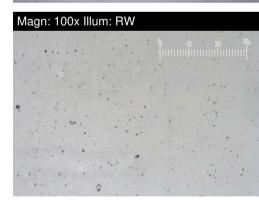
MOBIL MOBILITH SHC SERIES 100 (--- GAL)



Magn: 50x Illum: RW



| FERROGRAPHY           |            | method      | limit/base | current | history1 | history2 |
|-----------------------|------------|-------------|------------|---------|----------|----------|
| Ferrous Rubbing       | Scale 0-10 | ASTM D7684* |            | 3       |          |          |
| Ferrous Sliding       | Scale 0-10 | ASTM D7684* |            | 1       |          |          |
| Ferrous Cutting       | Scale 0-10 | ASTM D7684* |            |         |          |          |
| Ferrous Rolling       | Scale 0-10 | ASTM D7684* |            | 2       |          |          |
| Ferrous Break-in      | Scale 0-10 | ASTM D7684* |            |         |          |          |
| Ferrous Spheres       | Scale 0-10 | ASTM D7684* |            |         |          |          |
| Ferrous Black Oxides  | Scale 0-10 | ASTM D7684* |            | 2       |          |          |
| Ferrous Red Oxides    | Scale 0-10 | ASTM D7684* |            |         |          |          |
| Ferrous Corrosive     | Scale 0-10 | ASTM D7684* |            |         |          |          |
| Ferrous Other         | Scale 0-10 | ASTM D7684* |            |         |          |          |
| Nonferrous Rubbing    | Scale 0-10 | ASTM D7684* |            |         |          |          |
| Nonferrous Sliding    | Scale 0-10 | ASTM D7684* |            |         |          |          |
| Nonferrous Cutting    | Scale 0-10 | ASTM D7684* |            |         |          |          |
| Nonferrous Rolling    | Scale 0-10 | ASTM D7684* |            |         |          |          |
| Nonferrous Other      | Scale 0-10 | ASTM D7684* |            |         |          |          |
| Carbonaceous Material | Scale 0-10 | ASTM D7684* |            |         |          |          |
| Lubricant Degradation | Scale 0-10 | ASTM D7684* |            |         |          |          |
| Sand/Dirt             | Scale 0-10 | ASTM D7684* |            | 2       |          |          |
| Fibres                | Scale 0-10 | ASTM D7684* |            |         |          |          |
| Spheres               | Scale 0-10 | ASTM D7684* |            |         |          |          |
| Other                 | Scale 0-10 | ASTM D7684* |            |         |          |          |



#### WEAR

All component wear rates are normal. The ferrography results are normal indicating no abnormal wear in the system. This page left intentionally blank