

## **OIL ANALYSIS REPOR**

Sample Number

Sample Date

Machine Age

Oil Changed

Sample Status

Oil Age

### Area WP08 [1980896] WP08SW03 (S/N 1715 200)

Gearbox Fluid MOBIL SHC 632 (2 GAL)

#### Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. ( Customer Sample Comment: Monthly oil change and sample )

### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

#### Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

|        | Sample         | e Rating Tre    | nd                        | _           |             |
|--------|----------------|-----------------|---------------------------|-------------|-------------|
| RT     |                |                 |                           | A           | DITIVES     |
|        |                |                 |                           |             |             |
|        |                |                 |                           |             |             |
|        |                |                 |                           |             |             |
|        |                |                 |                           |             |             |
|        |                |                 |                           |             |             |
|        |                |                 |                           |             |             |
|        |                |                 |                           |             |             |
|        | ar2021 Jul2021 | Jan2022 Apr2022 | Sep2022 Mar2023 Aug2023 F | eb2024      |             |
| IATION | method         | limit/base      | current                   | history1    | history2    |
|        | Client Info    |                 | WC0915682                 | WC0887666   | WC0887671   |
|        | Client Info    |                 | 06 Jun 2024               | 25 Apr 2024 | 28 Mar 2024 |
| hrs    | Client Info    |                 | 881                       | 8708        | 7983        |
| hrs    | Client Info    |                 | 881                       | 725         | 669         |
|        | Client Info    |                 | Changed                   | Changed     | Changed     |
|        |                |                 | ATTENTION                 | NORMAL      | NORMAL      |

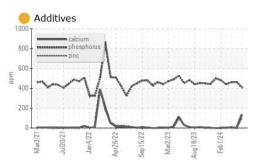
| Water WC Method >0.2 NEG NEG NEG   WEAR METALS method limit/base current history1 history2   Iron ppm ASTM D5185m >200 77 3 4   Chromium ppm ASTM D5185m >15 <1 0 <1   Nickel ppm ASTM D5185m >15 1 <1 <1   Titanium ppm ASTM D5185m >15 <1 0 <1   Silver ppm ASTM D5185m <25 16 3 3   Lead ppm ASTM D5185m >200 27 <1 <1   Copper ppm ASTM D5185m >200 27 <1 <1   Tin ppm ASTM D5185m >200 27 <1 <1 | CONTAMINATION | N   | method      | limit/base | current | history1 | history2 |
|--|---------------|-----|-------------|------------|---------|----------|----------|
| Iron   ppm   ASTM D5185m   >200   77   3   4     Chromium   ppm   ASTM D5185m   >15   <1   | Water         |     | WC Method   | >0.2       | NEG     | NEG      | NEG      |
| Chromium   ppm   ASTM D5185m   >15   <1  | WEAR METALS   |     | method      | limit/base | current | history1 | history2 |
| Nickel   ppm   ASTM D5185m   >15   1   <1  | Iron          | ppm | ASTM D5185m | >200       | 77      | 3        | 4        |
| Titanium   ppm   ASTM D5185m   <1  | Chromium      | ppm | ASTM D5185m | >15        | <1      | 0        | <1       |
| Silver   ppm   ASTM D5185m   <1  | Nickel        | ppm | ASTM D5185m | >15        | 1       | <1       | <1       |
| Aluminum   ppm   ASTM D5185m   >25   16   3   3     Lead   ppm   ASTM D5185m   >100   <1   0   1     Copper   ppm   ASTM D5185m   >200   27   <1   <1     Tin   ppm   ASTM D5185m   >25   4   <1   1   | Titanium      | ppm | ASTM D5185m |            | <1      | 0        | <1       |
| Lead   ppm   ASTM D5185m   >100   <1   | Silver        | ppm | ASTM D5185m |            | <1      | 0        | <1       |
| Copper   ppm   ASTM D5185m   >200   27   <1  | Aluminum      | ppm | ASTM D5185m | >25        | 16      | 3        | 3        |
| Tin   ppm   ASTM D5185m   >25   4   <1   | Lead          | ppm | ASTM D5185m | >100       | <1      | 0        | 1        |
|  | Copper        | ppm | ASTM D5185m | >200       | 27      | <1       | <1       |
|  | Tin           | ppm | ASTM D5185m | >25        | 4       | <1       | 1        |
| Vanadium   ppm   ASIM U5185m   <1  | Vanadium      | ppm | ASTM D5185m |            | <1      | 0        | <1       |
| Cadmium   ppm   ASTM D5185m   <1   | Cadmium       | ppm | ASTM D5185m |            | <1      | 0        | 1        |

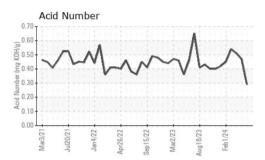
| ADDITIVES    |     |             |            |                    |          | history2 |
|--------------|-----|-------------|------------|--------------------|----------|----------|
| Boron        | ppm | ASTM D5185m |            | 0                  | 0        | 0        |
| Barium       | ppm | ASTM D5185m |            | 1                  | 0        | <1       |
| Molybdenum   | ppm | ASTM D5185m |            | <1                 | 0        | <1       |
| Manganese    | ppm | ASTM D5185m |            | <1                 | <1       | <1       |
| Magnesium    | ppm | ASTM D5185m |            | 2                  | 0        | <1       |
| Calcium      | ppm | ASTM D5185m |            | <mark> </mark> 134 | 0        | 4        |
| Phosphorus   | ppm | ASTM D5185m |            | 411                | 463      | 463      |
| Zinc         | ppm | ASTM D5185m |            | 99                 | <1       | 10       |
| Sulfur       | ppm | ASTM D5185m |            | 0                  | 30       | 0        |
| CONTAMINANTS |     | method      | limit/base | current            | history1 | history2 |
| Silicon      | ppm | ASTM D5185m | >50        | 18                 | 6        | 6        |
| Sodium       | ppm | ASTM D5185m |            | 2                  | 1        | <1       |
| Potassium    | ppm | ASTM D5185m | >20        | 2                  | <1       | 1        |

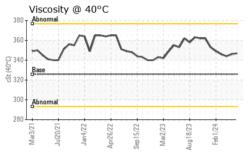
| FLUID DEGRAD     | ATION    |            |      |      |      |  |
|------------------|----------|------------|------|------|------|--|
| Acid Number (AN) | ma KOH/a | ASTM D8045 | 0.29 | 0.47 | 0.51 |  |



# **OIL ANALYSIS REPORT**

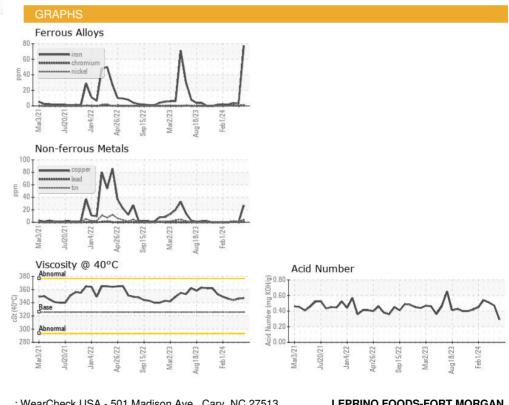


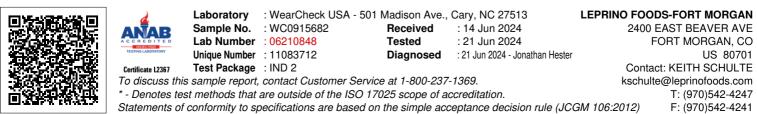




| VISUAL           |        | method    | limit/base | current | history1 | history2 |
|------------------|--------|-----------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual   | 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   | >0.2       | NEG     | NEG      | NEG      |
| Free Water       | scalar | *Visual   |            | NEG     | NEG      | NEG      |
| FLUID PROPERT    | IES    | method    | limit/base | current | history1 | history2 |
| Visc @ 40°C      | cSt    | ASTM D445 | 325.8      | 347     | 346      | 344      |
| SAMPLE IMAGES    | 5      | method    | limit/base | current | history1 | history2 |
| Color            |        |           |            | a.      | a.       |          |

Bottom





Report Id: LEPFOR [WUSCAR] 06210848 (Generated: 06/22/2024 05:07:35) Rev: 2

Submitted By: KEITH SCHULTE

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