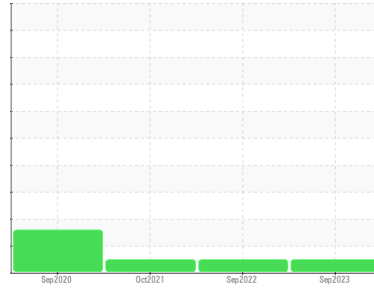




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
PTU-3 - M2-0416

Component
Gearbox
Fluid
GULF EP 100 (--- 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.

Wear

All component wear rates are normal.

Contamination

The water content is negligible. 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 | | | RP0038772 | RP0030017 | RP0022492 |
| Sample Date | Client Info | | | 06 Sep 2023 | 09 Sep 2022 | 05 Oct 2021 |
| Machine Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | Client Info | | | N/A | Not Chngd | N/A |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

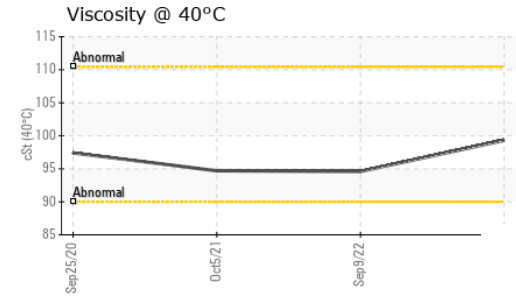
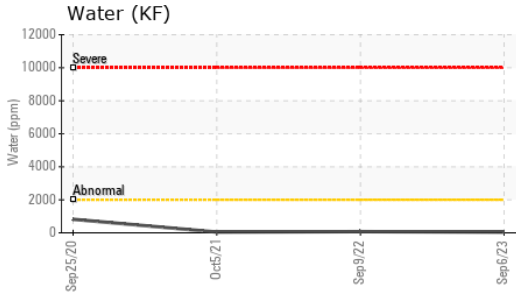
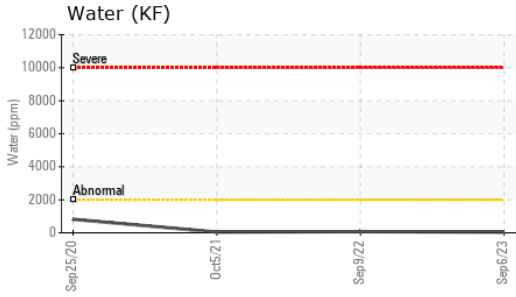
| WEAR METALS | | method | limit/base | current | history1 | history2 |
|-------------|-----|-------------|------------|------------|----------|----------|
| Iron | ppm | ASTM D5185m | >200 | 24 | 24 | 17 |
| Chromium | ppm | ASTM D5185m | >15 | 0 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >15 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Silver | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Aluminum | ppm | ASTM D5185m | >25 | 0 | <1 | <1 |
| Lead | ppm | ASTM D5185m | >100 | 0 | <1 | <1 |
| Copper | ppm | ASTM D5185m | >200 | 0 | <1 | <1 |
| Tin | ppm | ASTM D5185m | >25 | 0 | <1 | <1 |
| Antimony | ppm | ASTM D5185m | >5 | --- | --- | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | <1 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m | | 7 | 9 | 13 |
| Barium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | | 0 | 3 | 2 |
| Calcium | ppm | ASTM D5185m | | 16 | 18 | 16 |
| Phosphorus | ppm | ASTM D5185m | | 178 | 185 | 183 |
| Zinc | ppm | ASTM D5185m | | 0 | 14 | 2 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m | >50 | <1 | <1 | <1 |
| Sodium | ppm | ASTM D5185m | | <1 | 1 | 1 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | 0 | 0 |
| Water | % | ASTM D6304 | >0.2 | 0.004 | 0.007 | 0.004 |
| ppm Water | ppm | ASTM D6304 | >2000 | 43.0 | 72.9 | 46.7 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 0.43 | 0.50 | 0.463 |

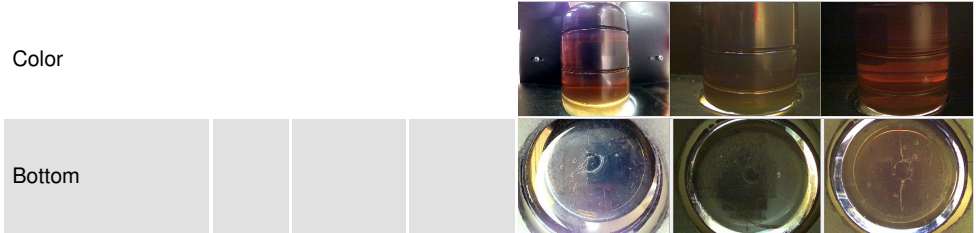
OIL ANALYSIS REPORT



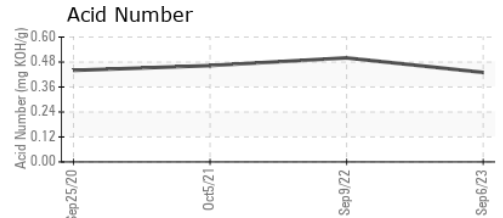
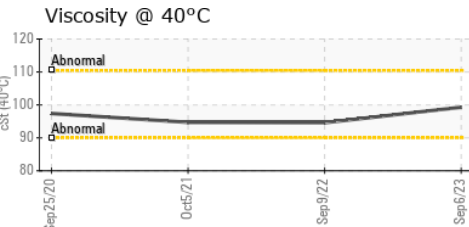
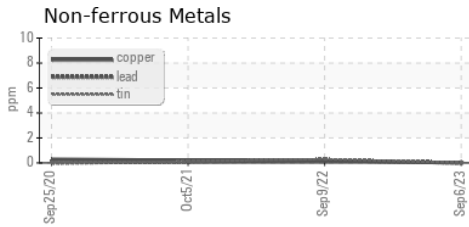
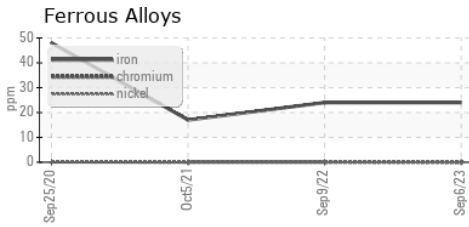
| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | LIGHT |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE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

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 99.3 | 94.6 | 94.7 |

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



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0038772 **Received** : 28 Sep 2023
Lab Number : 05964240 **Diagnosed** : 29 Sep 2023
Unique Number : 10670791 **Diagnostician** : Wes Davis
Test Package : IND 2

VEOLIA WATER
 1 NEW BOSTON RD EXTENSION
 STURBRIDGE, MA
 US 01566
 Contact: WAYNE JOHNSON
 WAYNE.JOHNSON2@VEOLIA.COM
 T: (508)347-2514
 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)