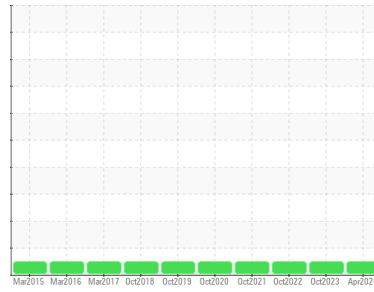




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area

[JL]

Machine Id

P-307 (S/N 100098610)

Component

Pump

Fluid

MOBIL DTE ISO VG 46 (--- 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 | | WC0933177 | WC0861259 | WC0749396 |
| Sample Date | Client Info | | 15 Apr 2024 | 05 Oct 2023 | 11 Oct 2022 |
| Machine Age | yrs | Client Info | 12 | 10 | 10 |
| Oil Age | yrs | Client Info | 1 | 0 | 0 |
| Oil Changed | Client Info | | Changed | Changed | Changed |
| Sample Status | | | NORMAL | NORMAL | NORMAL |

CONTAMINATION

| | method | limit/base | current | history1 | history2 |
|-------|-----------|------------|------------|----------|----------|
| Water | WC Method | >.1 | NEG | NEG | NEG |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|----------|--------|-----------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m >75 | 0 | 0 | 0 |
| Chromium | ppm | ASTM D5185m >5 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | 0 | <1 | 0 |
| Titanium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185m >5 | 0 | 0 | 0 |
| Lead | ppm | ASTM D5185m >10 | 0 | <1 | 0 |
| Copper | ppm | ASTM D5185m >15 | <1 | <1 | <1 |
| Tin | ppm | ASTM D5185m | <1 | 0 | 0 |
| Antimony | ppm | ASTM D5185m | --- | --- | --- |
| Vanadium | ppm | ASTM D5185m | 0 | 0 | <1 |
| Cadmium | ppm | ASTM D5185m | 0 | 0 | 0 |

ADDITIVES

| | method | limit/base | current | history1 | history2 |
|------------|--------|-------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | 0 | <1 |
| Manganese | ppm | ASTM D5185m | <1 | 0 | <1 |
| Magnesium | ppm | ASTM D5185m | 0 | <1 | 0 |
| Calcium | ppm | ASTM D5185m | 1 | 0 | 0 |
| Phosphorus | ppm | ASTM D5185m | 114 | 108 | 116 |
| Zinc | ppm | ASTM D5185m | 73 | 83 | 73 |
| Sulfur | ppm | ASTM D5185m | 840 | 701 | 532 |

CONTAMINANTS

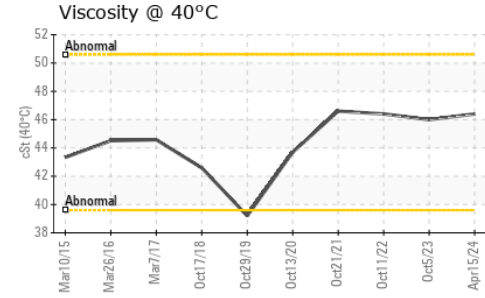
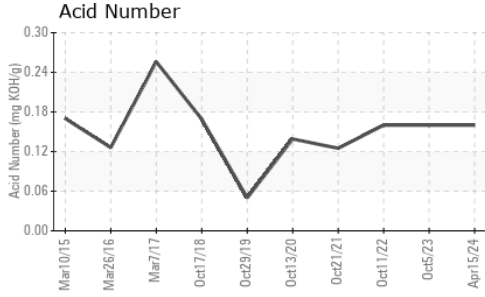
| | method | limit/base | current | history1 | history2 |
|-----------|--------|-----------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m >20 | <1 | 0 | <1 |
| Sodium | ppm | ASTM D5185m | 1 | 0 | 0 |
| Potassium | ppm | ASTM D5185m >20 | 2 | <1 | 0 |

FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 |
|------------------|----------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.16 | 0.16 | 0.16 |



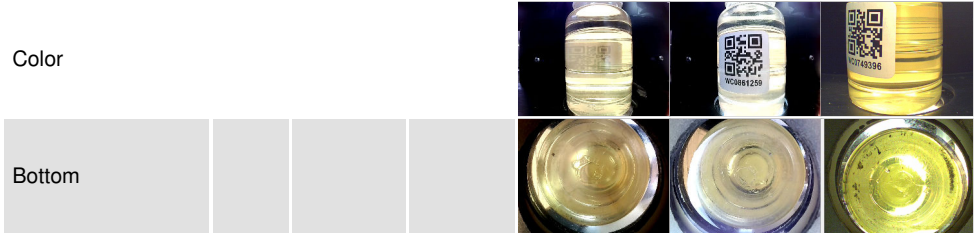
OIL ANALYSIS REPORT



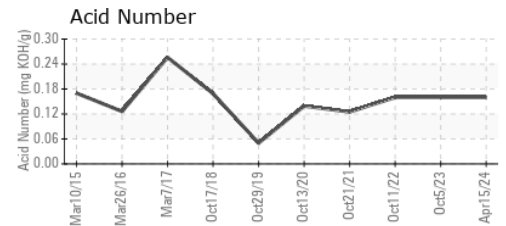
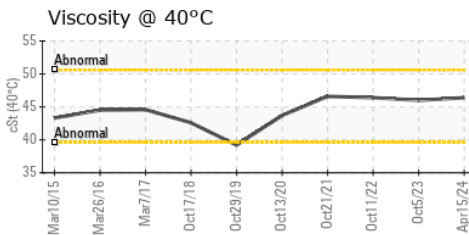
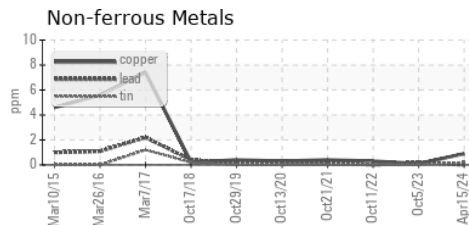
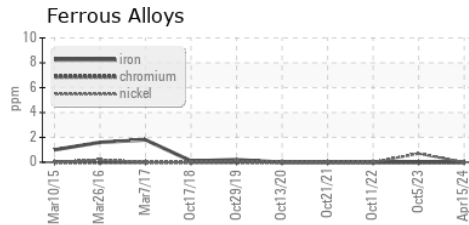
| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | 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 | >.1 | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 46.4 | 46.0 | 46.4 |

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



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0933177
Lab Number : 06152134
Unique Number : 10982212
Test Package : IND 2

Received : 17 Apr 2024
Tested : 18 Apr 2024
Diagnosed : 19 Apr 2024 - Sean Felton

PIEDMONT NATURAL GAS
 2256 HARPER HOUSE ROAD
 FOUR OAKS, NC
 US 27524

Contact: STEVE SMITH
 steve.smith@duke-energy.com

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)

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