

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

GTRB-1405 Propane Turbine

Tank Turbine

PHILLIPS 66 Diamond Class® Turbine Oil AW 32 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The amount and size of particulates present in the system are acceptable. 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.

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|--|--|--|--|--|--|---|---|----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

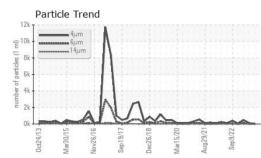


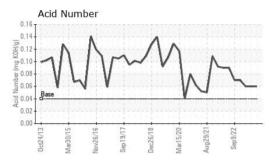
2013 Mar2015 Nov2016 See2017 Dec2018 Mar2020 Aug2021 See2022

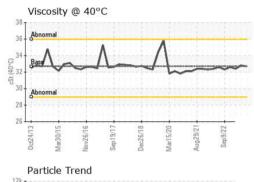
| SAMPLE INFORM | IATION | method | limit/base | current | history1 | history2 |
|------------------|----------|--------------|------------|-------------|-------------|-------------|
| Sample Number | | Client Info | | HLC0002695 | HLC0002665 | HLC0002295 |
| Sample Date | | Client Info | | 12 Oct 2023 | 10 Jun 2023 | 11 Mar 2023 |
| Machine Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | N/A | N/A | N/A |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >15 | 0 | 0 | 0 |
| Chromium | ppm | ASTM D5185m | >4 | <1 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >10 | <1 | 1 | 0 |
| Lead | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >5 | 0 | 0 | 0 |
| Tin | ppm | ASTM D5185m | >5 | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m | | <1 | 4 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Magnesium | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Calcium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Phosphorus | ppm | ASTM D5185m | | 2 | 21 | 16 |
| Zinc | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Sulfur | ppm | ASTM D5185m | | 1319 | 1212 | 926 |
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >15 | 0 | 0 | <1 |
| Sodium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | 0 | 0 |
| FLUID CLEANLIN | IESS | method | limit/base | current | history1 | history2 |
| Particles >4µm | | ASTM D7647 | | 41 | 104 | 482 |
| Particles >6µm | | ASTM D7647 | >1300 | 20 | 28 | 105 |
| Particles >14µm | | ASTM D7647 | >160 | 3 | 3 | 9 |
| Particles >21µm | | ASTM D7647 | >40 | 0 | 1 | 2 |
| Particles >38µm | | ASTM D7647 | >10 | 0 | 0 | 0 |
| Particles >71µm | | ASTM D7647 | >3 | 0 | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >/17/14 | 13/11/9 | 14/12/9 | 16/14/10 |
| FLUID DEGRADA | TION | method | limit/base | current | history1 | history2 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.04 | 0.06 | 0.06 | 0.06 |

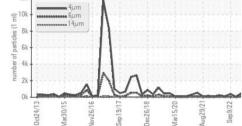


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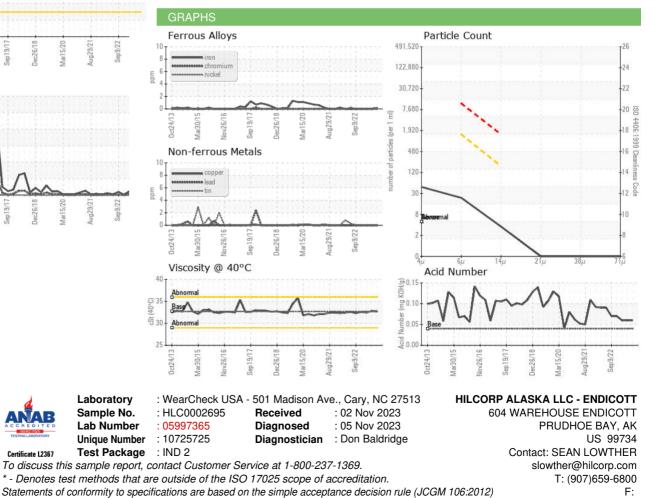






| VISUAL | | method | | | | history2 |
|------------------|--------|-----------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | 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 | >0.03 | 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 | 32.7 | 32.7 | 32.8 | 32.4 |
| SAMPLE IMAGES | S | method | limit/base | current | history1 | history2 |
| Color | | | | | | |
| | | | | | 1 | |

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Contact/Location: SEAN LOWTHER - BPEEND