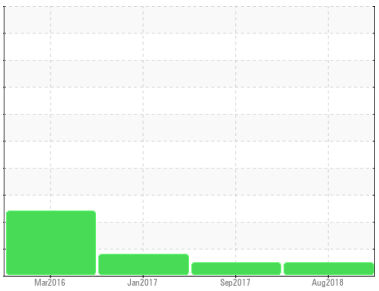
# OIL ANALYSIS REPORT

Sample Rating Trend




NORMAL

Machine Id
## GENERAL ELECTRIC YG-7001 (S/N 316X154)
Component
**Turbine**
Fluid
**ROYAL PURPLE SYNFILM GT 32 (3328 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.

| SAMPLE INFORMATION | | method | limit/base | current | history 1 | history 2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **RP180548** | RP180552 | RP04160808 |
| Sample Date | | Client Info | | **09 Aug 2018** | 04 Sep 2017 | 30 Jan 2017 |
| Machine Age | hrs | Client Info | | **371872** | 363736 | 358768 |
| Oil Age | hrs | Client Info | | **31952** | 23816 | 18848 |
| Oil Changed | | Client Info | | **Not Changd** | Not Changd | Not Changd |
| Sample Status | | | | **NORMAL** | NORMAL | ATTENTION |

| WEAR METALS | | method | limit/base | current | history 1 | history 2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >15 | **<1** | <1 | <1 |
| Chromium | ppm | ASTM D5185m | >4 | **0** | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >2 | **0** | 0 | <1 |
| Titanium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Silver | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >10 | **0** | <1 | 0 |
| Lead | ppm | ASTM D5185m | | **<1** | 0 | 0 |
| Copper | ppm | ASTM D5185m | >5 | **1** | 1 | <1 |
| Tin | ppm | ASTM D5185m | >5 | **<1** | 0 | 0 |
| Antimony | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | **0** | 0 | 0 |

| ADDITIVES | | method | limit/base | current | history 1 | history 2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | | **<1** | 1 | <1 |
| Barium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | **0** | <1 | 0 |
| Manganese | ppm | ASTM D5185m | | **<1** | <1 | 0 |
| Magnesium | ppm | ASTM D5185m | | **8** | 4 | 27 |
| Calcium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Phosphorus | ppm | ASTM D5185m | | **4** | 2 | 51 |
| Zinc | ppm | ASTM D5185m | | **2** | 2 | 2 |

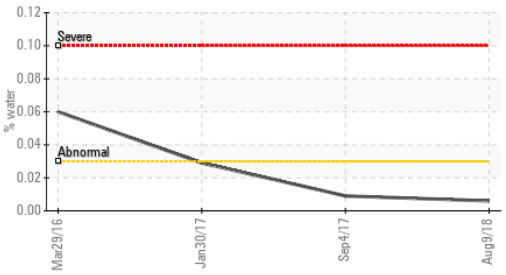
| CONTAMINANTS | | method | limit/base | current | history 1 | history 2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >15 | **<1** | 0 | <1 |
| Sodium | ppm | ASTM D5185m | | **0** | 0 | 2 |
| Potassium | ppm | ASTM D5185m | >20 | **0** | 0 | 0 |
| Water | % | ASTM D6304 | >0.03 | **0.006** | 0.009 | 0.029 |
| ppm Water | ppm | ASTM D6304 | >300 | **60** | 90 | 290 |

| FLUID CLEANLINESS | | method | limit/base | current | history 1 | history 2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | | **261** | 1946 | 11182 |
| Particles >6µm | | ASTM D7647 | >1300 | **62** | 152 | ▲ 1823 |
| Particles >14µm | | ASTM D7647 | >160 | **10** | 14 | 43 |
| Particles >21µm | | ASTM D7647 | >40 | **4** | 8 | 8 |
| Particles >38µm | | ASTM D7647 | >10 | **0** | 5 | 0 |
| Particles >71µm | | ASTM D7647 | >3 | **0** | 5 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >--/17/14 | **15/13/10** | 18/14/11 | ▲ 21/18/13 |

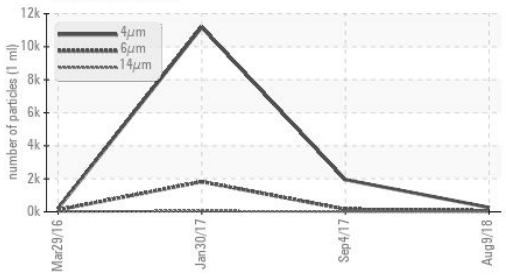
| FLUID DEGRADATION | | method | limit/base | current | history 1 | history 2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | **0.294** | 0.197 | 0.250 |

# OIL ANALYSIS REPORT

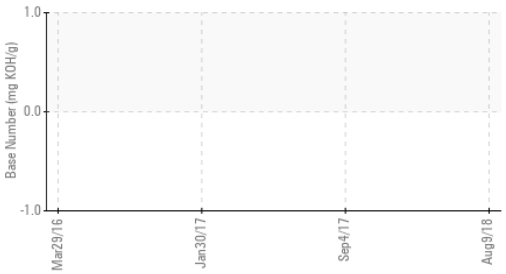
Water



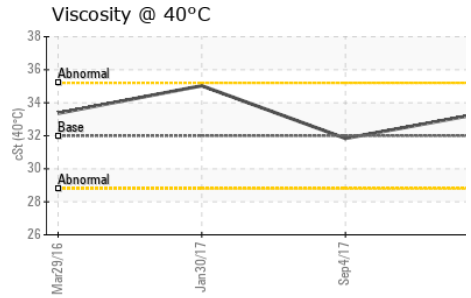

Particle Trend



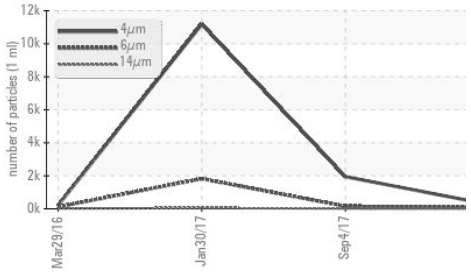

Base Number




Viscosity @ 40°C




Particle Trend



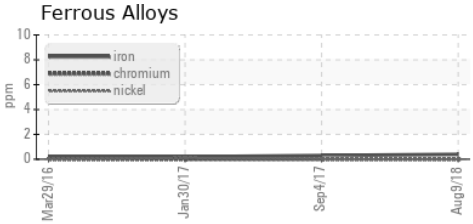

| VISUAL | | method | limit/base | current | history 1 | history 2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Silt | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Debris | scalar | *Visual | NONE | **NONE** | VLITE | 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 PROPERTIES | | method | limit/base | current | history 1 | history 2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 32 | **33.44** | 31.84 | 35.03 |

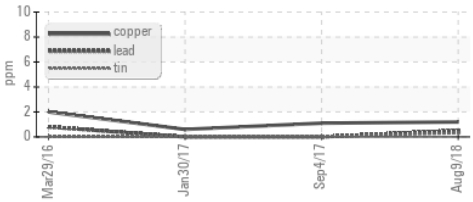
| SAMPLE IMAGES | method | limit/base | current | history 1 | history 2 |
|---|---|---|---|---|---|
| Color | | | | | |
| Bottom | | | | | |

## GRAPHS

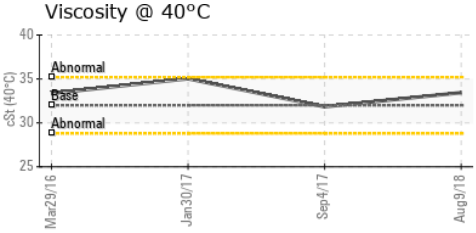
Ferrous Alloys



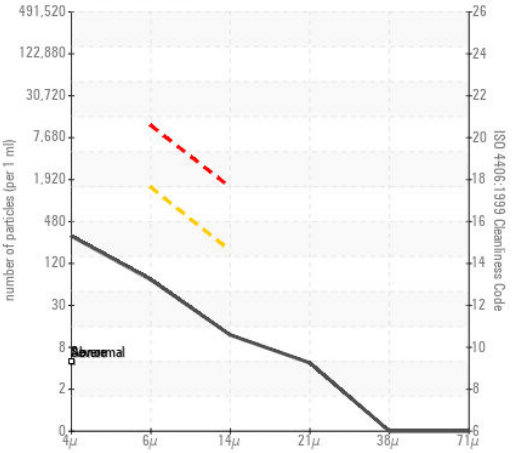

Non-ferrous Metals



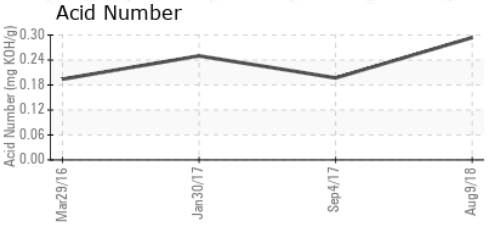

Viscosity @ 40°C




Particle Count




Acid Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : RP180548 **Received** : 05 Sep 2018
**Lab Number** : 04545255 **Diagnosed** : 07 Sep 2018
**Unique Number** : 8319087 **Diagnostician** : Doug Bogart
**Test Package** : IND 2 ( Additional Tests: PrtCount, TBN )

*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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