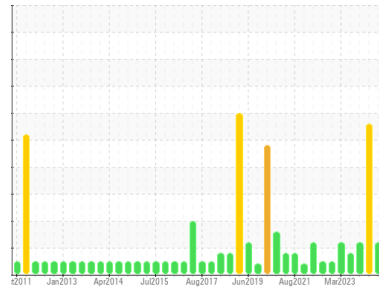




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area
SAB1
 Machine Id
SAB1 G6
 Component
Turbine Bearing
 Fluid
ESSO TERESSO ISO 46 (150 LTR)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code.

Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | WC0933973 | WC0812558 | WC0642846 |
| Sample Date | Client Info | | 03 Jul 2024 | 15 May 2024 | 21 Dec 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 | | | ABNORMAL | SEVERE | ABNORMAL |

CONTAMINATION

| | method | limit/base | current | history1 | history2 |
|-------|-----------|------------|------------|----------|----------|
| Water | WC Method | >2 | NEG | NEG | NEG |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|-----------|-------------|-------------------|--------------|----------|----------|
| PQ | ASTM D8184* | | 0 | 0 | 0 |
| Iron | ppm | ASTM D5185(m) >7 | 4 | ▲ 10 | 1 |
| Chromium | ppm | ASTM D5185(m) >2 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185(m) >2 | <1 | 0 | 0 |
| Titanium | ppm | ASTM D5185(m) | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185(m) >2 | <1 | 0 | <1 |
| Lead | ppm | ASTM D5185(m) >33 | 3 | ● 11 | 2 |
| Copper | ppm | ASTM D5185(m) >3 | <1 | <1 | <1 |
| Tin | ppm | ASTM D5185(m) >6 | 0 | <1 | 0 |
| Antimony | ppm | ASTM D5185(m) | 0 | <1 | 0 |
| Vanadium | ppm | ASTM D5185(m) | 0 | 0 | 0 |
| Beryllium | ppm | ASTM D5185(m) | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185(m) | 0 | 0 | 0 |

ADDITIVES

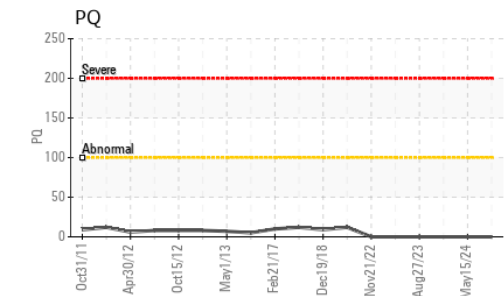
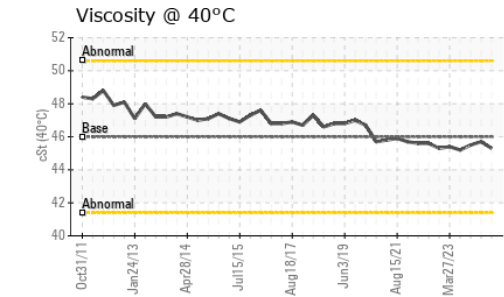
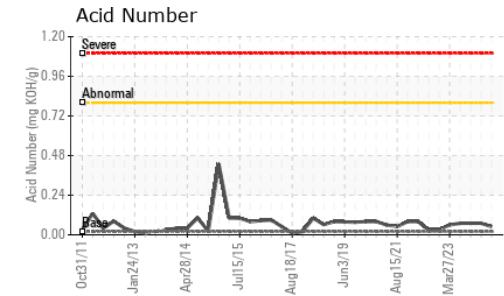
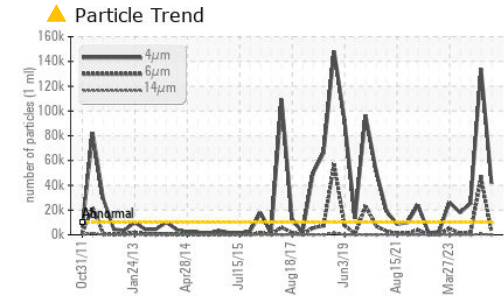
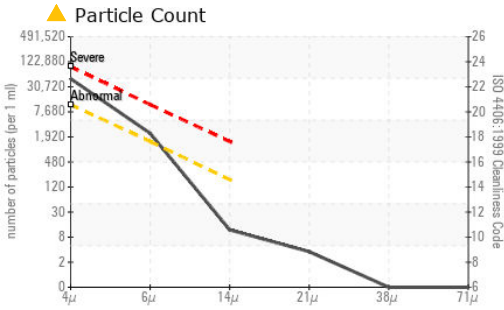
| | method | limit/base | current | history1 | history2 |
|------------|--------|-------------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185(m) 0 | <1 | 0 | 0 |
| Barium | ppm | ASTM D5185(m) | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) 0 | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185(m) | 0 | 0 | 0 |
| Magnesium | ppm | ASTM D5185(m) 0 | 0 | 2 | 0 |
| Calcium | ppm | ASTM D5185(m) 0 | 2 | 11 | <1 |
| Phosphorus | ppm | ASTM D5185(m) 2.4 | 2 | 2 | 3 |
| Zinc | ppm | ASTM D5185(m) 0 | 2 | 2 | <1 |
| Sulfur | ppm | ASTM D5185(m) | 601 | 616 | 709 |
| Lithium | ppm | ASTM D5185(m) | <1 | <1 | <1 |

CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|-------------------|----------|----------|----------|
| Silicon | ppm | ASTM D5185(m) >20 | 1 | <1 | 5 |
| Sodium | ppm | ASTM D5185(m) | 0 | 1 | 0 |
| Potassium | ppm | ASTM D5185(m) >20 | 0 | <1 | <1 |



OIL ANALYSIS REPORT



| FLUID CLEANLINESS | method | limit/base | current | history1 | history2 |
|-------------------|--------------|------------|------------|------------|------------|
| Particles >4µm | ASTM D7647 | >10000 | ▲ 41551 | ▲ 134041 | ▲ 25335 |
| Particles >6µm | ASTM D7647 | >1300 | ● 2052 | ▲ 46308 | ● 1527 |
| Particles >14µm | ASTM D7647 | >160 | 10 | ▲ 554 | 12 |
| Particles >21µm | ASTM D7647 | >40 | 3 | 39 | 4 |
| Particles >38µm | ASTM D7647 | >10 | 0 | 1 | 1 |
| Particles >71µm | ASTM D7647 | >3 | 0 | 1 | 0 |
| Oil Cleanliness | ISO 4406 (c) | >20/17/14 | ▲ 23/18/10 | ▲ 24/23/16 | ▲ 22/18/11 |

| FLUID DEGRADATION | method | limit/base | current | history1 | history2 |
|-------------------|---------------------|------------|---------|----------|----------|
| Acid Number (AN) | mg KOH/g ASTM D974* | 0.02 | 0.05 | 0.07 | 0.07 |

| 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 | VLITE | LIGHT | NONE |
| Debris | scalar Visual* | NONE | NONE | NONE | NONE |
| Sand/Dirt | scalar Visual* | NONE | NONE | NONE | VLITE |
| Appearance | scalar Visual* | NORML | NORML | NORML | NORML |
| Odor | scalar Visual* | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar Visual* | >2 | NEG | NEG | NEG |
| Free Water | scalar Visual* | | NEG | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|-------------------|------------|---------|----------|----------|
| Visc @ 40°C | cSt ASTM D7279(m) | 46 | 45.3 | 45.7 | 45.5 |

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

Color



Bottom



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0933973
Lab Number : 02645509
Unique Number : 5803048
Test Package : IND 2 (Additional Tests: PQ, PrtCount, TAN Man)

Ontario Power Generation
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 F: (905)374-5466

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.